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THE ELEMENTARY SCHOOL TEACHER

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THE SCHOOL AS SOCIAL CENTER.[1]

ACCORDING to the character of my invitation to speak to you, I shall confine myself to the philosophy of the school as a social center. I accept the invitation with pleasure, but at the same time I do not feel that the philosophical aspect of the matter is the urgent or important one. The pressing thing, the significant thing, is really to make the school a social center; that is a matter of practice, not of theory. Just what to do in order to make the schoolhouse a center of full and adequate social service, to bring it completely into the current of social life — such are the matters, I am sure, which really deserve the attention of the public and occupy your own minds.

It is possible, however, and conceivably useful to ask ourselves: What is the meaning of the popular demand in this direction? Why should the community in general, and those particularly interested in education in especial, be so unusually sensitive at just this period to this need? Why should the lack be more felt now than a generation ago? What forces are stirring that awaken such speedy and favorable response to the notion that the school, as a place of instruction for children, is not performing its full function — that it needs also to operate as a center of life for all ages and classes?

A brief historic retrospect will put before us the background of the present situation. The function of education, since anything which might pass by that name was found among savage tribes, has been social. The particular organ or structure, however, through which this aim was subserved, and the nature

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of its adjustment to other social institutions, have varied according to the peculiar condition of the given time. The general principle of evolution—development from the undifferentiated toward the formation of distinct organs through division of labor—stands out clearly in a survey of educational history. At the outset there was no school as a separate institution. The educative processes were carried on in the ordinary play of family and community life. As the ends to be reached by education became more numerous and remote, and the means employed more specialized, it was necessary, however, for society to develop a distinct institution. Only in this way could the special needs be adequately attended to. In this way developed the schools carried on by great philosophical organizations of antiquity—the Platonic, Stoic, Epicurean, etc.; then came schools as a phase of the work of the church. Finally, with the increasing separation of church and state, the latter asserted itself as the proper founder and supporter of educational institutions; and the modern type of public, or at least quasi-public, school developed. There are many who regard the transfer of this educational function from the church to the state as more than a matter for regret; they conceive of it as a move which, if persisted in, will result disastrously to the best and permanent interests of mankind. But I take it we are not called upon today to reckon with this class, large and important as it may be. I assume that practically all here are believers in the principle of state education—even if we should not find it entirely easy to justify our faith on logical or philosophical grounds. The reason for referring to this claiming by the state of the function of education is to indicate that it was a continuance of the policy of specialization or division of labor.

With the development of the state has come a certain distinction between state and society. As I use these terms, I mean by "state" the organization of the resources of community life through governmental machinery of legislation and administration. I mean by "society" the less definite and freer play of the forces of the community which goes on in the daily intercourse and contact of men in an endless variety of ways that

have nothing to do with politics or government or the state in any institutional sense. Now, the control of education by the state inevitably carried with it a certain segregation of the machinery of both school administration and instruction from the freer, more varied, and more flexible modes of social intercourse. So true is this that for a long time the school was occupied exclusively with but one function, the purveying of intellectual material to a certain number of selected minds. Even when the democratic impulse broke into the isolated department of the school, it did not effect a complete reconstruction, but only the addition of another element. This was preparation for citizenship. The meaning of this phrase, "preparation for citizenship," shows precisely what I have in mind by the difference between the school as an isolated thing related to the state alone, and the school as a thoroughly socialized affair in contact at all points with the flow of community life. Citizenship, to most minds, means a distinctly political thing. It is defined in terms of relation to the government, not to society in its broader aspects. To be able to vote intelligently, to take such share as might be in the conduct of public legislation and administration — that has been the significance of the term.

Now our community life has suddenly awakened; and in awakening it has found that governmental institutions and affairs represent only a small part of the important purposes and difficult problems of life, and that even that fraction cannot be dealt with adequately except in the light of a wide range of domestic, economic, and scientific considerations quite excluded from the conception of the state of citizenship. We find that our political problems involve race questions, questions of the assimilation of diverse types of language and custom; we find that most serious political questions grow out of underlying industrial and commercial changes and adjustments; we find that most of our pressing political problems cannot be solved by special measures of legislation or executive activity, but only by the promotion of common sympathies and a common understanding. We find, moreover, that the solution of the difficulties must go back to a more adequate scientific comprehension of

the actual facts and relations involved. The isolation between state and society, between the government and the institutions of family, business life, etc., is breaking down. We realize the thin and artificial character of the separation. We begin to see that we are dealing with a complicated interaction of varied and vital forces, only a few of which can be pigeon-holed as governmental. The content of the term "citizenship" is broadening; it is coming to mean all the relationships of all sorts that are involved in membership in a community.

This of itself would tend to develop a sense of something absent in the existing type of education, something defective in the service rendered by the school. Change the image of what constitutes citizenship, and you change the image of what the purpose of the school is. Change this, and you change the picture of what the school should be doing and of how it should be doing it. The feeling that the school is not doing all that it should do in simply giving instruction during the day to a certain number of children of different ages; the demand that it shall assume a wider scope of activities having an educative effect upon the adult members of the community, has its basis just here. We are feeling everywhere the organic unity of the different modes of social life, and consequently demand that the school shall be related more widely, shall receive from more quarters, and shall give in more directions.

As I have already intimated, the older idea of the school was that its primary concern was with the inculcation of certain facts and truths from the intellectual point of view, and the acquisition of certain forms of skill. When the school became public or common, this notion was broadened to include whatever would make the citizen a more capable and righteous voter and legislator; but it was still thought that this end would be reached along the line of intellectual instruction. To teach children the constitution of the United States, the nature and working of various parts of governmental machinery, from the nation through the state and the county down to the township and the school district—to teach such things was thought to prepare the pupil for citizenship. And so some fifteen or twenty

years ago, when the feeling arose that the schools were not doing all that they should be doing for our life as a whole, this consciousness expressed itself in a demand for a more thorough and extensive teaching of civics. To my mind the demand for the school as a social center bears the same ratio to the situation which confronts us today as the movement for civics bore to the conditions of half a generation ago. We have awakened to deeper aspects of the question; we have seen that the machinery of governmental life is, after all, but a machinery and depends for its rightness and efficiency upon underlying social and industrial causes. We have lost a good deal of our faith in the efficiency of purely intellectual instruction.

Some four specific developments may be mentioned as having a bearing upon the question of the school as a social center. The first of these is the much-increased efficiency and ease of all the agencies that have to do with bringing people into contact with each other. Recent inventions have so multiplied and cheapened the means of transportation, and the circulation of ideas and news through books, magazines, and papers, that it is no longer physically possible for one nationality, race, class, or sect to be kept apart from others, impervious to their wishes and beliefs. Cheap and rapid long-distance transportation has made America a meeting-place for all the peoples and tongues of the world. The centralization of industry has forced members of classes into the closest association with, and dependence upon, each other. Bigotry, intolerance, or even an unswerving faith in the superiority of one's own religious and political creed, are much shaken when individuals are brought face to face with each other, or have the ideas of others continuously and forcibly placed before them. The congestion of our city life is only one aspect of the bringing of people together which modern inventions have induced.

That many dangers result from sudden dislocations of people from the surroundings—physical, industrial, and intellectual—to which they have become adapted; that great instability may accompany this sudden massing of heterogeneous elements, goes without saying. On the other hand, these very agencies present

instrumentalities which may be taken advantage of. The best as well as the worst of modern newspapers is a product. The organized public library with its facilities for reaching all classes of people is an effect. The popular assembly and lyceum is another. No educational system can be regarded as complete until it adopts into itself the various ways by which social and intellectual intercourse may be promoted, and employs them systematically, not only to counteract dangers which these same agencies are bringing with them, but so as to make them positive causes in raising the whole level of life.

Both the demand and the opportunity are increased in our large cities by the commingling of classes and races. It is said that one ward in the city of Chicago has forty different languages represented in it. It is a well-known fact that some of the largest Irish, German, and Bohemian cities in the world are located in America, not in their own countries. The power of the public schools to assimilate differing races to our own institutions, through the education given to the younger generation, is doubtless one of the most remarkable exhibitions of vitality that the world has ever seen. But, after all, it leaves the older generation still untouched; and the assimilation of the younger can hardly be complete or certain as long as the homes of the parents remain comparatively unaffected. Indeed, wise observers in both New York and Chicago have recently sounded a note of alarm. They have called attention to the fact that in some respects the children are too rapidly, I will not say Americanized, but too rapidly denationalized. They lose the positive and conservative value of their own native traditions, their own native music, art, and literature. They do not get complete initiation into the customs of their new country, and so are frequently left floating and unstable between the two. They even learn to despise the dress, bearing, habits, language, and beliefs of their parents — many of which have more substance and worth than the superficial putting on of newly adopted habits. If I understand aright, one of the chief motives in the development of the new labor museum at Hull House has been to show the younger generation something of the skill and art and historic meaning in the industrial habits

of the older generations — modes of spinning, weaving, metal-working, etc., discarded in this country because there was no place for them in our industrial system. Many a child has awakened to an appreciation of admirable qualities hitherto unknown in his father or mother for whom he had begun to entertain a contempt. Many an association of local history and provincial glory has been awakened to quicken and enrich the life of the family.

In the second place, along with this increasing intercourse and interaction, with all its dangers and opportunities, there has come a relaxation of the bonds of social discipline and control. I suppose none of us would be willing to believe that the movement away from dogmatism and fixed authority is anything but a movement in the right direction. But no one can view the loosening of the power of the older religious and social authorities without deep concern. We may feel sure that in time independent judgment, with the individual freedom and responsibility that go with it, will more than make good the temporary losses. But meantime there is a temporary loss. Parental authority has much less influence in controlling the conduct of children. Reverence seems to decay on every side, and boisterousness and hoodlumism to increase. Flippancy toward parental and other forms of constituted authority waxes, while obedient orderliness wanes. The domestic ties between husband and wife themselves, as well as to their children, lose something of their permanence and sanctity. The church, with its supernatural sanctions, its means of shaping the daily life of its adherents, finds its grasp slowly slipping away. We might as well frankly recognize that many of the old agencies for moralizing mankind, that kept men living decent, respectable, and orderly lives, are losing in efficiency—particularly those agencies whose force rested in custom, tradition, and unquestioning acceptance. It is impossible for society to remain purely a passive spectator in the midst of such a scene. It must search for other agencies with which it may repair the loss, and which may produce the results the former methods are failing to secure. Here, too, it is not enough for society to confine its work to children.

However much they may need the disciplinary training of a widened and enlightened education, the older generation needs it also. Besides, time is short, very short, for the average child in the average city school. The work is hardly more than begun there, and unless it is largely to go for naught the community must find methods of supplementing it and carrying it farther, outside the regular school channel.

In the third place, the intellectual life, facts, and truths of knowledge, are much more obviously and intimately connected with all other affairs of life than they ever have been at any previous period in the history of the world. Hence a purely and exclusively intellectual instruction means less than it ever meant before. And, again, the daily occupations and ordinary surroundings of life are much more in need of interpretation than ever they have been before. We might almost say that once there was a time when learning related almost wholly to a world outside and beyond that of the daily concerns of life itself. To study physics, to learn German, to become acquainted with Chinese history, were elegant accomplishments, but more or less useless from the standpoint of daily life. In fact, it is just this sort of idea which the term "culture" still conveys to many minds. Where learning was useful, it was only to a comparatively small and particularly select class in the community. It was something that only the doctor or lawyer or clergyman needed in his particular calling, but so far away from and above the mass of mankind that it could only awaken their blind and submissive admiration. The recent public lament regarding the degradation of the teacher's calling is, to my mind, but a reminiscence of the time when to know enough to be a teacher was something which of itself set off the individual in a special class by himself. It fails to take account of the changes which have put knowledge in common circulation, and made it possible for every man to be a teacher in some respect unto his neighbor.

Under modern conditions, practically every sphere of learning, whether of social or natural science, may impinge at once, and at any point, upon the conduct of life. German is not a fact, knowledge of which makes a distinction between a man

and his fellow, but a mode of social and business intercourse. Physics is no longer natural philosophy — something concerned with remarkable discoveries about important but very remote laws; it is a set of facts which, through the applications of heat and electricity to our ordinary surroundings, constantly comes home to us. Physiology, bacteriology, anatomy, concern our individual health and the sanitation of our cities. Their facts are exploited in sensational if not scientific ways in the daily newspapers. And so we might go through the whole schedule of studies, once so foreign and alien, and show how intimately concerned they now are with commonplace life. The simple fact is that we are living in an age of applied science. It is impossible to escape the influence, direct and indirect, of the applications.

On the other hand, life is getting so specialized, the divisions of labor are carried so far, that nothing explains or interprets itself. The worker in a modern factory who is concerned with a fractional piece of a complex activity, present to him only in a limited series of acts carried on with a distinct portion of a machine, is typical of much in our entire social life. The old worker knew something of his process and business as a whole. If he did not come into personal contact with all of it, the whole was so small and so close to him that he was acquainted with it. He was thus aware of the meaning of the particular part of the work which he himself was doing. He saw and felt it as a vital part of the whole, and his horizon was extended. The situation is now the opposite. Most people are doing particular things of whose exact reasons and relationships they are only dimly aware. The whole is so vast, so complicated, and so technical that it is next to out of the question to get any direct acquaintanceship with it. Hence we must rely upon instruction, upon interpretations that come to us through conscious channels. One of the chief reasons for the success of some of the great technical correspondence schools of the present day, besides the utilitarian desire to profit by preparation for better positions, is an honest eagerness to know something more of the great forces which condition the particular work one is

doing, and to get an insight into those broad relations which are so partially yet tantalizingly hinted at. The same is true of the growing interest in forms of popular science, which is a marked portion of the stock in trade of some of the best and most successful of our modern monthly magazines. This same motive has added much to the effectiveness of the university-extension movement, particularly in England. It creates a particular demand for a certain type of popular illustrated lecture. Unless the lives of a large part of our wage-earners are to be left to their own barren meagerness, the community must see to it, by some organized agency, that they are instructed in the scientific foundation and the social bearings of the things they see about them and of the activities in which they are themselves engaged.

(4) The fourth point of demand and opportunity is the prolongation, under modern conditions, of continuous instruction. We have heard much of the significance of prolonged infancy in relation to education. It has become almost a part of our pedagogical creed that premature engagement in the serious vocations of life is detrimental to full growth. There is a corollary to this proposition which has not as yet received equal recognition. Only where social occupations are well defined and of a pretty permanent type can the period of instruction be cut short at any particular period. It is commonly recognized that a doctor or a lawyer must go on studying all his life if he is to be a successful man in his profession. The reason is obvious enough. Conditions about him are highly unstable; new problems present themselves; new facts obtrude. Previous study of law, no matter how thorough and accurate, does not provide for these new situations. Hence the need of continual study. There are still portions of the country where the lawyer practically prepares himself before he enters upon his professional career. All he has to do afterward is to perfect himself in certain finer points, and get greater skill in the manipulation of what he already knows. But these are the more backward and unprogressive sections where change is gradual and infrequent, and where therefore the individual prepared once is prepared always.

Now, what is true of the lawyer and the doctor, in the more

progressive sections of the country, is true to a certain extent of all sorts and degrees of people. Social, economic, and intellectual conditions are changing at a rate undreamed of in past history, and unless the agencies of instruction are kept running more or less parallel with these changes, a considerable body of men is bound to find itself without the training which will enable it to adapt itself to what is going on. It will be left stranded and become a burden for the community to carry. Where progress is continuous and certain, education must be equally certain and continuous. The youth at eighteen may be educated so as to be ready for the conditions which will meet him at nineteen; but he can hardly be prepared for those which are to confront him when he is forty-five. If he is ready for the latter when they come, it will be because his own education has been keeping pace in the intermediate years. Doubtless conversation, social intercourse, observation, and reflection upon what one sees going on about him, the reading of magazines and books, will do much; they are important, even if unorganized methods of continuous education. But they can hardly be expected to do all, and hence they do not relieve the community from the responsibility of providing, through the school as a center, a continuous education for all classes of whatever age.

The fourfold need, and the fourfold opportunity, which I have hastily sketched, defines to some extent the work of the school as a social center. It must provide at least part of that training which is necessary to keep the individual properly adjusted to a rapidly changing environment. It must so interpret to him the intellectual and social meaning of the work in which he is engaged that it will reveal its relations to the life and work of the world. It must make up to him in part for the decay of dogmatic and fixed methods of social discipline. It must compensate him for the loss of reverence and of the influence of authority. And, finally, it must provide means for bringing people and their ideas and beliefs together, in ways that will lessen friction and instability, and introduce deeper sympathy and wider understanding.

In what ways shall the school as a social center perform these

various tasks? To answer this question in anything like detail is to pass from my allotted sphere of philosophy into that of practical execution. But it comes within the scope of a theoretical consideration to indicate certain general lines. First, there is a mixing up of people with each other; a bringing them together under wholesome influences, and under conditions which will promote their getting acquainted with the best side of each other. I suppose, whenever we are framing our ideals of the school as a social center, what we think of particularly is the better class of social settlements. What we want is to see the school, every public school, doing something of the same sort of work that is now done by a settlement or two scattered at wide distances through the city. We all know that the function of such an institution as Hull House has been primarily not that of conveying intellectual instruction, but of being a social clearing-house. It is not merely a place where ideas and beliefs may be exchanged in the arena of formal discussion, for argument alone breeds misunderstanding and fixes prejudice; but it is much more a place where ideas are incarnated in human form and clothed with the winning grace of personal life. Classes for study may be numerous, but they are regarded as modes of bringing people together, of doing away with the barriers of caste or class or race or type of experience that keep people from real communion with each other.

The function of the school as a social center in promoting social meetings for social purposes suggests at once another function — provision and direction of reasonable forms of amusement and recreation. The social club, the gymnasium, the amateur theatrical representation, the concert, the stereopticon lecture—these are agencies the force of which social settlements have long known, and which are coming into use wherever anything is doing in the way of making schools social centers. I sometimes think that recreation is the most overlooked and neglected of all ethical forces. Our whole Puritan tradition tends to make us slight this side of life, or even condemn it. But the demand for recreation, for enjoyment just as enjoyment, is one of the strongest and most fundamental things in human

nature. To pass it over is to invite it to find its expression in defective and perverted form. The brothel, the saloons, the low dance house, the gambling den, the trivial, inconsiderate, and demoralizing associations which form themselves on every street corner, are the answer of human nature to the neglect, on the part of supposed moral leaders, of this factor in human nature. I believe that there is no force more likely to count in the general reform of social conditions than the practical recognition that in recreation is a positive moral influence which it is the duty of the community to take hold of and direct.

(3) In the third place, there ought to be some provision for a sort of continuous social selection of a somewhat specialized type—using "specialized," of course, in a relative sense. Our cities carried on evening schools long before anything was said or heard of the school as a social center. These were intended to give instruction in the rudiments to those who had little or no early opportunities. So far they were and are good. But what I have in mind is something of a more distinctly advanced and selective nature. To refer once more to the working model upon which I am pretty continuously drawing, in the activities of Hull House we find provision made for classes in music, drawing, clay-modeling, joinery, metal-working, and so on. There is no reason why something in the way of scientific laboratories should not be provided for those who are particularly interested in problems of mechanics or electricity; and so the list might be continued. Now, the obvious operation of such modes of instruction is to pick out and attract to itself those individuals who have particular ability in any particular line. There is a vast amount of unutilized talent dormant all about us. Many an individual has capacity within himself of which he is only dimly conscious, because he has never had an opportunity for expressing it. He is not only losing the satisfaction of employment, but society suffers from this wasted capital. The evils of the unearned increment are as nothing beside those of the undiscovered resource. In time, I am confident, the community will recognize that it is quite as natural and necessary a part of its own duty to provide such opportunities for adults as will enable

them to discover and carry to some point of fulfilment the particular capacities that distinguish them, as it is to give instructions to little children.

In conclusion, we may say that the conception of the school as a social center is born of our entire democratic movement. Everywhere we see signs of the growing recognition that the community owes to each one of its members the fullest opportunity for development. Everywhere we see the growing recognition that the community life is defective and distorted except as it does thus care for all its constituent parts. This is no longer viewed as a matter of charity, but as a matter of justice — nay, even of something higher and better than justice — a necessary phase of developing and growing life. Men will long dispute about material socialism, about socialism considered as a matter of distribution of the material sources of the community; but there is a socialism regarding which there can be no such dispute: socialism of the intelligence and of the spirit. To extend the range and the fulness of sharing in the intellectual and spiritual resources of the community is the very meaning of the community. Because the older type of education is not fully adequate to this task under changed conditions, we feel its lack and the demand that the school shall become a social center. The school as a social center means the active and organized promotion of this socialism of the intangible things of art, science, and other modes of social intercourse.

JOHN DEWEY.

THE UNIVERSITY OF CHICAGO.

LITERATURE IN THE ELEMENTARY SCHOOL.

I.

Among the questions that present themselves in a discussion of literature in the elementary school, as indeed in any school, these seem essential: What do we expect to do for the child in teaching him literature? What varieties and phases of literature are best adapted to him? How shall these be presented to him, and what immediate return shall be asked of him? It seems only reasonable to seek for answers to these questions among those distinctive qualities that set off literature from other material of discipline.

To begin with, we dismiss from the present consideration all books and written matter used in the school, which are not literature. There is much lingering confusion upon this point even among teachers, many of them proceeding upon the mistaken assumption that any book — science, history, or any other information book — if only it be written correctly, is literature and will serve in the literary training of the child. But we will understand that we exclude from the account all technical books and deal only with pure literature. Again, it seems well to keep the discussion simple by shutting out all the reading that may be done by the child or for him in his home or elsewhere out of school. It makes the matter easier to handle if we insist that in these papers the two terms of the topic — literature in the school — are to be strictly interpreted.

The most conspicuous and distinctive fact about literature is that, while it finds its subject-matter in nature, in human nature, and in human life, it passes all this material through the medium of the imagination and returns it to us modified, transformed, or rearranged by the influence of the imagination. It is this power of the mind that lifts from its place in the actual world the object, the person, the action, the experience, and elevates it to the plane of art. It is the imagination that, working upon this

plane with this material, makes new combinations, discovers new affinities, detects hidden essential qualities, brings to light unexpected resemblances and unnoticed contrasts, and turns back to us products that are new creations. It is the imagination working in its larger creative capacity, permeating and superintending the judgment, that constructs out of the scattered and chaotic material gathered by observation, unified, harmonious, satisfying wholes. The veriest realist, professing to render back to us the world of actuality, does, first of all by virtue of the selection of his details, and then by the recombination of them, use his imagination and elevate his material to the plane of art. This recombination, to be good and acceptable as art, should, no matter how simple the product may be, display the large qualities of general art-form — unity, variety, symmetry, proportion, harmony. When we say that by virtue of these things literature tends to cultivate a child's imagination, we do not mean anything so absurd as that he should be given any conscious knowledge of these qualities or processes, or even that his teacher should be conscious of them. But we do mean in part that literature cultivates the child's imagination by putting it into contact with these large processes of recombination and harmonious adjustment. Now, there is a rather common misapprehension of the term "cultivation" in the phrase "cultivation of the imagination," many people taking it for granted that it invariably and exclusively means the increasing of the amount or quantity of the child's fancies. Undoubtedly this is sometimes desirable. There are children either born without imagination, or so early crushed down beneath the weight of commonplaceness, that they encounter in communing with their elders, that they seem never to have a fancy — to be entirely without an inner world or a spiritual playground. But the average child has abundant imagination and an abundance of imaginations; while children of the artistic or emotional temperament may often be found, especially in the period before and about seven years, living in a world of their own creation, led here and there by fantastic notions and accidental combinations of notions, unable to report the exact facts of an observation or an experience because of the

thronging into consciousness of purely fanciful and invented details. To increase the amount of such a child's imaginative material would be a mistake. To throttle or ignore entirely his imaginative activities would be a more serious mistake. We all know the two lines that the history of such a child is likely to follow. Either he drifts on, indulging his dreams, inventing his unguided fancies, following new vagaries, until all his mental processes become untrustworthy; or he is taken in hand, given fact-studies exclusively, becomes ashamed of his fancies or loses interest in them because they bear no relation to anything in the world of reality as he is learning to know it, and finally loses completely his imaginative power.

What such a child needs—indeed, what the average child needs—is some ability to select among his fancies so as to cling to the beautiful and useful ones and to discard the ugly and idle; he needs help toward a process of unification and harmony, so that he may bring some order out of the chaos of his own imagination and construct out of his material inventions that will please his taste and his judgment and will therefore remain permanent possessions. Perhaps the safest, the most concrete, the least obtrusive way to put into his hands a clue to guide him here is to teach him literature. Select a story, a lyric in which he may see it done; one that shows economy of imaginative material, artistic and reasonable arrangement, beauty of expression, and a satisfying purpose or achievement; and it cannot fail to be a guide and a model to him in his own imaginative experience. Such a little classic is Perrault's version of "Cinderella," displaying, as it does, abundant fancy and invention, but displaying also perfect economy of incident, certainty and refinement of taste in the selection and arrangement of details, restraint and truthfulness in its outcome. One should compare it with Grimm's version of the same tale to realize the unifying and purifying work of the imagination. For Grimm's version shows us the chaotic, unguided, and grotesque choice and arrangement of the mind which remains a mere victim to its own fancies. There are, as we have said, very matter-of-fact children who actually need to have given them such mere

vagaries and haphazard inventions; it would be a pity to deprive any child of them in his hours of intellectual play. But it is from his contact with the more artistic and ordered bits of literature that we expect the child to find something of steadiness and center, some cultivation for his own imagination.

A second characteristic distinctive of literature is that, unlike other kinds of writing, it proceeds by the presentation of concrete, specific details, the actual image or images combined into pictures, elevated from the world of reality to the plane of art, or constructed there of details gathered from scattered sources. In proportion as literature gives us abstract thinking, statement of general truth or plain fact, or mere sentimentalizing, in such measure is it dull and inartistic. "The orange is a yellowish, semi-tropical fruit," is a statement of fact, plain and uninteresting, given in a scientific way. "Among the dark boughs the golden orange glows," lifts the object into the world of art, sets it in a picture, nay, gives it to us "in the round," living and vital. And this is the literary way. "The fox-glove blooms centripetally," one may say as dry fact; but when literature says, "The fox-glove drops a daily lessening bell," while it conveys the same fact, it gives us the image—indeed, the whole picture—of a specific object, as well as of a complete individual process. By virtue of this characteristic, literature may be expected to perform a somewhat definite service for the child. We may expect it to increase his store of images and to supplement it in many directions. Of course, the ordinary child has many images, since he has eyes and ears always open, and fingers always active. But the sights and sounds he receives are not varied, and rarely beautiful. It is the extraordinary, the occasional child, who sees in his home pictures and many beautiful and interesting objects; who is taken often to the country, to the mountains, to the sea, where he may store up many beautiful and distinguished images to serve him later for inner joy and as material for his thinking. The other child, whose experience is confined largely to the streets and the shops, the commonplace sights and sounds of the town or of his otherwise limited horizon, should find his store of images

increased and enriched by contributions from literature. And since the details of literature are concrete images, vivid pictures —not generalizations and not abstractions—they may take their place in the consciousness side by side with those registered by the memory from actual experience, and serve the same purposes.

Now, the mere elevation of a detail to the sphere of art gives it a new dignity and distinction. Says Fra Lippo:

> We're made so that we love
> First when we see them painted, things that we have passed
> Perhaps a hundred times, nor cared to see.

So the child, when the details he knows, or may know, in real life are transferred to literature, sees them surrounded with a halo, a new beauty. Unconsciously this halo, this radiance of art, spreads itself over the objects that he sees, and they too take on a new, reflected beauty. The children who had made the phrases "rosy radishes" and "golden carrots" had found in the grocer's window a new and artistic joy. Through literature and by the literary way the child may be led to a truer insight into his own surroundings and to a more gracious interpretation of them.

As a corollary, partly to the use by the imagination of the concrete detail, and partly to the unifying power of the imagination in handling its material in literature, we have the fact of figurative thinking as a distinctive characteristic of this art. A figure implies either the discovery of a striking or essential contrast between objects, or the recognition of a resemblance ranging in closeness from mere similarity to complete identification. Whichever be the process, the result is the pleasing indirection of literature, the vistas of suggestion and association opening in all directions, the charm that inheres in speaking of one thing in terms of another, the surprises and recognitions that await us in every line. We may pass over, though reluctantly, the somewhat mystical theory that a contact with these contrasts and resemblances may help on in the child that process of unification and identification which is the paramount human task; we may leave out of sight as too speculative and unpractical the immense enlargement of his categories that might come to the child in any recognition of the fundamental separa-

tions and unions implied in figure; these we may leave aside and take the simple aspect of it—that the interpretation and explanation of even the commoner figures quickens the child's intelligence and helps to develop mental alertness and certainty. Not even a sense of humor is more useful in his intellectual experience than the ability to understand a figure of speech. While the child who can make and use any figure other than mere elementary personifications, which all children can make and use, is well along on the path toward philosophy and art. By virtue of the fact that the figurative way of thinking and speaking is characteristic of literature, it should have a distinct contribution to make to this side of the child's training.

Literature, in common with the other arts, of course, but as distinguished from other kinds of writing, aims at beauty—cares first of all for beauty. In the selection of its subject-matter it is the strikingly beautiful in nature, in character, in action, that it seeks out for presentation. Its use of ugly or horrible subject-matter is generally by way of bringing into stronger relief beauty actually presented beside it; by way of implying beauty not presented; by way of producing the grotesque as a form of beauty; or by way of accomplishing some reform or exploitation, really foreign to art, but conceived by the individual artist as his duty or his opportunity. And always, even when for any of these, or for other reasons, literature handles unbeautiful material, it seeks beauty of form. The larger matters of general art-form, such as unity, harmony, symmetry, have been mentioned elsewhere in this paper. Besides these there are the smaller and more obvious elements of form that belong distinctively to the literary art, and are partly matters of mere craftsmanship—rhythm, meter, rhyme, and other items of verse-form, all the musical effects of speech, the choice of phrase and epithet, the arrangement of clause and sentence—these and many other matters, minor and too numerous to mention, must be considered as elements in the formal beauty of literature. It would be easy, as it is tempting, to follow into its amplifications each of these elements considered as an influence in the art training of the child. But brief statements, all too

general, are all we can permit ourselves. The problem of the child's contact with the beautiful in subject-matter is the problem of his contact with it anywhere else. The conditions are modified scarcely at all by the fact that the material is not presented in its actual, tangible bulk, but as an imitation, a reproduction of the actual thing. Accepting once for all the conditions of the imagination, the effect upon the child's taste is the same as that of his contact with beautiful and noble objects under conditions of outer time and space.

It may be that it is too early to expect from the elementary child anything of conscious recognition or original use of any save the more obvious elements of literary form, such as meter or rhyme in verse. But this is much, and always in the right direction. And we must believe in the refining and stimulating influence upon his taste of his contact with formal beauty in this as in the other arts. The child who catches, if it be but as the merest imitator, the distinguished, the picturesque, the rhythmical phraseology of a piece of literature has acquired a thing of value. The little girl who said, "Let us take the foot-path way," made a bit of art herself, and the "faint Homeric echoes" of the boy who wrote, "Him we left sad at heart as the sea grew wide behind us," promise something with original dignity and elevation by and by. The child needs to hear thus early, while his ear is hungry, the sonorous music, the refined rhythms, the impressive movements of some great literature. He needs to hear its purity of diction, its distinction of phrase, its dainty choice of words, its reticent, subdued tones, even if all these must be left to work upon him unconsciously. But we all know that, as a matter of mere craftsmanship, he delights in the musical flow of his own sentences, in the new and beautiful word that adorns his own speech, in his own crude verse-making, just as he delights in his initial achievements in any of the other arts.

As distinctive of literature, setting it apart from other kinds of writing, we must note that it has always in it the warmth, the fervor of emotion. "The fox-glove blooms centripetally" is cold and colorless, however interesting it may be as technical fact. "The fox-glove drops a daily lessening bell" has in it one

knows not what of glow, of warmth, of emotional association. It trembles with feeling reflected and tingles with feeling invited. It is precisely this emotion permeating, warming, and coloring literature that gives it its reality, that establishes its hold, and gives it its relation to the world. But it is about this matter of emotion that the teacher's dangers and misgivings lie. There are those who fix upon it at once as ground for suspicion, if not of condemnation, of literature as a means of discipline. And we must all hasten to confess that this atmosphere of emotion is the snare of the weak teacher and the curse of weak literature. Emotion displayed or aroused unworthily, or attached to inadequate or ignoble stimuli, is either mere sentimentality or undue enthusiasm. A barren, aimless, and homeless emotion is the most unacceptable and unmanageable of spiritual tramps. It is something akin to a crime to stimulate unduly a child's emotion, to awaken in him feeling for which he is not ripe. But the policy or theory of ignoring his emotions, of suppressing them, or of keeping them subdued within the bounds of his mild pleasure in scientific observation or mathematical achievement, is surely short-sighted. It should not be difficult for a wise master to choose a bit of literature that reflects and invites the kind and degree of emotion suitable for the child, that gives him legitimate occasion for legitimate feeling, that exercises and cultivates this side of his nature, effecting in him that desirable "purifying discharge of emotion" that Aristotle regarded as one of the helpful offices of grown-up literature. It is a matter for rejoicing that in this atmosphere of feeling that permeates and surrounds literature and music, we may balance and counteract in the child the influence of his fact studies.

It is largely by virtue of this emotional grip by which literature takes hold of us, and we of it, that it becomes real to us, affecting our judgment, our ideals, our conduct. And we must never lose sight of the fact that literature is the presentation, the reproduction of life. Under whatever illumination of the imagination, splendor of form or glow of feeling, we can find ultimately only the features of life itself — the real world, chosen

and elevated to the plane of art, cleared of the accidental and unessential and displayed for our behoof and delight. It is needless to say that this fact lays upon the child's master another burden of choice. He must select his bit of literature as reflecting those aspects and activities of life that are fit and right for his child to witness. He may not offer to his scholar the problems of Hamlet or the experience of Gil Blas, but he may ask him to witness the moral choice of Beauty in the fairy tale, or the bluff kindness of Robin Hood in the bold old ballad. And whatever of enlargement and cultivation a child might be supposed to get from looking upon the lives of others, from watching the life of nature, we should be able to match for him in literature, deepened and enriched by the devices of a great art.

And perhaps, after all, we needed only to say that in teaching a child literature we give him joy. He is amused, he is charmed out of himself and within himself, he has opened to him an avenue of artistic pleasure. Perhaps the good and sufficient reason for teaching literature in the school is that we thus make sure that every child gets the chance to know and to make his own for life this source of unceasing and ennobling pleasure.

These, then, stated so briefly as to seem in many instances almost cabalistic, are some of the considerations that cluster about the question, "What may we expect to do for the child in teaching him literature?" But we are preparing only disappointment for ourselves if we are expecting to see all or any of the results hinted at appear before our very eyes in all children or in any child. Art is long. We must be patient of its processes and wait for its results. Besides, these results are even less ponderable and measurable than those of other disciplines. It is easy to know when a child can multiply. It is not so easy to know when he is in a hopeful stage of artistic experience. But we have a right to our faith that the far-off fruit of our planting will be fair.

PORTER LANDER MACCLINTOCK.

DEPARTMENT OF ENGLISH,
The University of Chicago.

HORTICULTURE IN THE ELEMENTARY SCHOOLS.

I.

No RECENT development in the life of the middle West is of greater promise than the growing interest in scientific agriculture. This interest is no new thing. No thoughtful observer who knows the difference between good farming and bad, and who realizes the immense possibilities of our western soils, can fail to be stirred by an impulse to do something that will make for ampler knowledge and better methods. We had such an interest in Illinois fifty years ago. The brilliant discoveries of Sir William Lawes at Rothamstead and Liebig at Giessen had roused keen interest in agricultural chemistry. Our wisest men believed it was destined to revolutionize methods of farming. Largely through the leadership of Jonathan Turner, of Jacksonville, Congress was induced to pass the Morrill Act of 1862 endowing our agricultural colleges. The Civil War then engrossed the popular attention. After the war the rapid development of our railway systems brought into cultivation the fertile areas beyond the Mississippi. The competition of their cheap grain and cattle made farming unprofitable in all the older states. But we have now practically reached the limit of the agricultural area. Only by great irrigation works or by expensive drainage systems can any considerable additions be made to our arable lands. The populations fed from our American farms are increasing in numbers as fast as ever. Farming now must become intensive rather than extensive. Hence the present revival of interest in such farming is in response to a genuine economic demand. The attendance upon our agricultural colleges is rapidly increasing. Their bulletins are eagerly read by intelligent farmers. Their professors address vast audiences at the farmers' institutes. Our legislatures appropriate large sums for their support.

In this advance agriculture is moving in the same lines as all

other trades and professions. The apprentice system is dying. Modern civilization is not satisfied with the rule-of-thumb methods learned by imitation. It demands that all arts be rational arts intelligently based upon an underlying science, and has created the technical school to meet this demand. But not every farmer's son can attend the agricultural college. Nearly all must depend upon the literature issued by such institutions. The bulletins are often too technical to appeal to the average farmer; they often abound in scientific terms based upon distinctions of which he is ignorant. It is evident that the agricultural experiment station will never accomplish its purpose unless there is diffused among our farming population an elementary knowledge of the sciences relating to agriculture. The rural schools and the high schools attended by farmers' sons must provide the necessary instruction. There seems no other practical way.

The education of the farmer is of interest to the general public, that there may be juicier steaks upon the block or finer fleeces in the loom, or because upon the magnitude of his crops depend the volume of foreign trade and the business activity of the country. To the teacher, however, education merely to increase industrial efficiency does not make the strongest appeal. It is well that the farmer render a larger social service. It is better that he himself lead a more complete life—a life of many-sided interests and of realized capacity.

There is an idea widely prevalent that culture is to be found in the far-off and remote. The less practical value there is attached to any species of knowledge, the less likely is it to be acquired in the ordinary activities of life. Such knowledge, partly because of its rarity, partly because its uselessness for practical ends makes its possession a mark of conspicuous leisure, and hence a valuable appurtenance of the wealthier classes, comes to be regarded with almost superstitious veneration. Yet is it not probable that the same beautiful economy reigns here as in all the other works of the Creator, and that we do not need one species of knowledge for industrial efficiency and something totally different for the intellectual life?

The best culture invests the commonplace objects of our life with a halo of interesting associations, so that every contact with them calls forth an intellectual response. In my boyhood I heard much of Elihu Burritt, the learned blacksmith, who earned his title by mastering thirteen languages. But suppose he had instead gained a knowledge of iron; of the geological processes that had accumulated the great ore beds of the earth; of the differing properties of iron from these varying ores; of the effect of small admixtures of manganese, or nickel, or sulphur, or phosphorus, or carbon; of the different modes of smelting and working the metal from prehistoric times; of the myriad uses to which it is put; of the properties that make it useful whether in the armor or a war vessel, or in the blood corpuscle that circulates in the brain of the poet. Had he known all this and all related knowledge pertaining to his craft, its materials and products, would not the title have been more worthily bestowed?

Man should stand in the center of his world: he should see his own activities linked with all things about him. The best education for efficiency, for delight, for moral purpose, is the education that enables him to see his work related, on the one hand, to the natural elements, material forces, with which he works; on the other, to the humanity which he serves.

The school education of the farmer hitherto has consisted of instruction in reading, arithmetic, grammar, geography, and history, during the winter months. Ambitious school boards sometimes provide a nine-months' term. But it is gravely argued both by thoughtful teachers and by practical men that it is a serious mistake to take the child out of the woods and fields and away from the activities and responsibilities of a well-ordered farm for so long a time. Unless the school course can be enriched, more schooling is a mistake. What is needed in the schools is such instruction as will enable the farmer best to appreciate and love the country. The knowledge of soil and atmosphere, of plant and animal life, that makes him an intelligent producer puts him in sympathetic touch with these activities of nature.

In many European school systems the problem has found a solution. The organization of their schools has made it easy. Where teachers are well prepared for their work and hold their positions for life, where schools are in almost continuous session during the summer months, where the dwelling of the teacher is built by the state only a few rods from the schoolhouse, the school garden, which is also the kitchen garden and flower garden of the schoolmaster, provides abundant opportunities for experiment and instruction. With us such a school garden seems an almost hopeless project. The ignorance of our teachers, the weeds that run riot in our school yards during the long summer vacations, the annual changes of position in our rural schools, the vandalism of tramps and thoughtless boys, all seem to veto effectively in this country adoption of the plans that have yielded such admirable results in Europe.

Hitherto our nature study has lacked practical purpose. Where most intelligently organized, it has aimed to give at best only a knowledge of the processes of plant life, the various structures that aid in these processes, and the adjustments of the various living forms to their special environment. The student is brought to some extent to see the meaning of natural phenomena, the purpose of special features, and sometimes the efficient causes that produce them. That our interest has been mainly intellectual rather than practical appears in the fact that we have preferred to study nature where her processes have not been interfered with or directed by man, rather than to study her behavior under such direction.

The want of practical aim is largely responsible for the want of organization and method in our nature-study courses, and the low place it holds in the popular esteem. It is commonly enumerated in the list of fads by the Philistines; even among teachers its most zealous advocates are obliged to confess their disappointment in the results hitherto achieved.

The instruction in our elementary schools must accomplish at least three ends:

1. It must stimulate the instinctive love of plant and flower.
2. It must impart a knowledge of the laws and needs of plant-

growth, both in a state of nature and under the somewhat artificial conditions of farm and garden.

3. It must accustom the child to act upon the promptings that this knowledge will arouse.

These ends can be accomplished in our rural schools, even under our present organization of the school year, if we can secure teachers who know and love the work. It is idle to expect satisfactory results from the mere use of a text-book or from oral lessons by the teacher. Even in the country the children have made few careful observations. Their notions of natural phenomena are vague and indefinite, largely derived from hearsay and colored by prevailing superstitions. There must be outdoor work, and, to accomplish the ends named above, there must be the personal care of growing plants to which the sense of ownership brings added interest and responsibility. Even if the ultimate end of the study is a better agriculture, it is not best to deal exclusively or even mainly with the cereals or forage crops of the farm. The valuable ends can all be secured in the cultivation of flowers and fruits; they are in themselves of greater interest to the children, and offer a greater variety of features for study. The cultivation of flowers does not present so many problems as the propagation and care of fruit trees; but it yields quick returns and appeals more strongly to the interests of children.

Under American school conditions the success of the teacher must depend very largely upon the extent to which he secures the co-operation of the parents in promoting the home gardens of the children. He can interest the children in the work, show how some of it can be done, and give directions for the rest. He probably will be able to show few finished products of the school garden itself. Even if the school garden could be carried on under as favorable conditions as in Germany, it would still be better to interest the children in the beautifying of their own homes through their individual efforts.

The teacher will start a window garden in September, knowing that his geraniums, petunias, salvias, and primroses will perish before Christmas. But the flowers that are started by the

children at home need not freeze. He will teach them how to prepare the soil for the pots or boxes, how to water the plants, to cleanse them from dust, to combat plant lice or fungi. By means of his starting boxes in April he will illustrate proper methods of handling soil and seed to avoid the "damps" and blights that vex the soul of the inexperienced. In the school garden will be found a variety of hardy annuals and an assortment of hybrid roses, cannas, gladioli, and other flowers that need especial attention for the winter. In many localities public sentiment will soon repress vacation vandalism, and see to it that the school garden is not neglected during the summer. Yet even under the most discouraging circumstances it can serve for illustration and instruction in methods of culture. Children may easily be taught budding, grafting, and other modes of propagating fruit trees. Seedlings may be grown at home and at school, the root-grafting at least may be done at school, the grafted stocks set out at home. Better trees can be bought of the nurseryman, but who would ignore the difference to the child?

Along with this plant-study will come a mass of tributary knowledge. The study of soils to determine their behavior toward water, the effects of drainage, the conditions of germination; simple experiments to make clear the necessity of soluble nitrates, potash, and phosphoric acid; the insect life of garden and orchard; the birds and bats, the toads that prey upon it — all are seen in vital relation to the practical activities in which the child is engaged. It need in no way diminish the extent of the course in nature study to give it this practical center about which other knowledge is organized. It has been the method of instruction in the education of the race. The bulk of our knowledge of nature has been discovered and preserved only as it served practical ends.

Horticulture can find a place in our schools only as our teachers become interested and qualified. No normal school should be without an extensive school garden and greenhouse in the hands of a competent florist; its work in biology should deal less with the minute anatomy of tissues, more with the

interrelations of living forms and their environment; and the student should acquire personal acquaintance with the art of the florist and gardener.

Thousands of American farm homes are without flowers in dooryard and garden. The apple, peach, and cherry are, in a majority of cases, the only fruits in the orchard. This condition is not because all the household are overworked. It is not because of indifference. It is usually due to simple ignorance of what to do. The game is surely worth the candle.

DAVID FELMLEY.

ILLINOIS STATE NORMAL UNIVERSITY.

ENGLISH IN ELEMENTARY SCHOOLS.

I.

I AM glad of an opportunity to express a few beliefs concerning the problem of elementary English. At the same time I wish to speak under correction, as one unacquainted with the special problems of method and grading.

In most secondary schools the term "English" covers the instruction given in at least seven subjects: handwriting, spelling, pronunciation, oral reading, English composition, English grammar, and English literature. The secondary-school teachers of subjects other than "English" give very little instruction in English spelling, pronunciation, oral reading, composition, or grammar. There are, fortunately, some shining exceptions. There are teachers of mathematics who see to it that their students can spell the words *mathematics*, *algebra*, *geometry*, *plane*, etc.; there are teachers of physics who demand well-written notebooks; there are teachers of history who require Lincoln's Gettysburg speech to be learned, and repeated with good articulation and expression. But such teachers are exceptions. Most are too busy in getting their students to college to bother much with spelling or handwriting or pronunciation. They will tell you frankly that is a question of the "required amount" of their given subject. The result is that the American student is deficient in those matters which are the external mark of the educated man. The average American student of eighteen has great difficulty in reading aloud a page of English intelligently, or in writing a correct letter.

The case is relatively better in the lower school. The responsibility is assumed by more teachers than in the high school, and there is probably a more general effort to correct the student's oral English. The secondary teacher usually regards the elementary teaching of English as very faulty. Yet very few secondary teachers do as much for the cause as do

the elementary. The best elementary schools certainly try to live up to the doctrine that every lesson should be a lesson in language.

This doctrine has been of the greatest value to American schools. Though liable to abuse, it is surely one of the soundest principles of teaching. The use of language should be acquired as a means to an end, and therefore must always be relatively "incidental." Education becomes real in proportion as the student learns things because he needs them. The infant, or "speechless one," is surprised into a world where he sees and feels, but has no words for his seeings and feelings. It is the business of his parents and teachers to supply him with words, the right words, as fast as he needs them. To respond to his needs with the right words is to teach language, and is always to keep subject-matter and form in their proper relations to each other.

The child's thirst for words is so keen, his memory is so retentive, and his sense of analogy is so strong that there must be "drill" from the very start. He will hear bad English from somebody, and will instantly use it. He will invent preterits which present usage does not recognize. He will surprise you with foreign idioms which he has never heard—will say "it is" for "there is," for example. It passes human wit to know which errors should be drilled out of him at once, and which should be left till his powers of analysis develop; but it is safe to err on the side of too much drill. The time to teach the difference between *lie* and *lay* is when the child is two years old. It can be taught perfectly then, and with less interruption of thought than will ever again be possible. But it must be learned by blind imitation and repetition. The gentle command, "say it," is the chief of all the commandments in teaching language.

There must be great dependence on imitation to a much later stage than we usually dream. A book could be written on the neglect of this principle in secondary and higher education. But especially at the first the arbitrary nature of language must be kept in mind. There can be no logical defense of *lie* for *lay*, or of *brought* for *bringed*, or of *aisle* for *aile*. Language has roots too deep for

searching out. It springs from the rude thinking of savages and peasants. It is a monument of chance as well as of occult physiological laws. It embodies every form of human error. And yet every language is a standard of expression. Its grossest absurdities become right with time, because it is a necessary social institution. The child may no more invent his own verbs than he may invent his own money. And while academies and national associations can clip the end off a word like *programme* (thereby plunging a careless public into a wrong pronunciation), they cannot prevent the printed thing from being called a *program*, or written thing.

As a matter of fact, the average American boy gets through the grammar school with a great number of vulgarisms clinging to him. If he is ever to be cured of saying *lay down* for *lie down*, or *ain't* for *isn't*, it must be by a prolonged and relatively unnatural drill at the hands of some high-school teacher. Whose fault is this? It is apparently that of the home. But is it, or is it not, the business of the elementary school to counteract the influence of the bad English spoken in the home? Sides are taken sharply on this question, but not so sharply as they must be taken within the next few years. For one I side with the minority who believe that the schools are to blame for the illiteracy of their graduates.

Examine the average city school. The classes are enormous, the subjects of study numerous. There is time for very little talking or reading aloud on the part of each pupil. The teacher may use excellent English, and may devoutly believe that power of expression should go step by step with advance in any subject of knowledge; but she can do very little effective teaching. She must keep order in a large room, and when that is done, much of the time is consumed.

A chance to talk and read and write under correction, this is what is needed by a child who is to learn English. More time for oral and written expression can be had by decreasing the size of the class or reducing the number of studies. Decreasing the size of the class is expensive to the taxpayers; but it is the goal to which we must tend and strive. Reducing the number

of studies is a question which admits of a wide discussion, and one may hope, with old Sir Thomas Browne, "of a wide solution." We cannot return to the days of the three R's. There are things even more important for the majority than grammar and spelling: civic honesty, for example, if it could be taught, might well displace moods and tenses. It may possibly be that singing and drawing are, for the majority, more important than good English. At all events, it is time that the real condition of things should be ascertained. The relative value of elementary studies should be discussed with the severest common-sense. And finally the question should be raised whether the children really learn the various studies about which they talk so little. For if language is half the time a nuisance (as when your mother insists on *lie down* for *lay down*, or when your study of calculus outstrips all language), yet for the other half time it is a great builder of thought. The "twofold logos of thought and speech" is one and inseparable. To communicate our notion is to test its reality. To find the right word for an act is often to win a moral victory.

In a second paper I shall speak briefly of the relation of grammar to the problem so stated, and of a few matters of usage toward which a teacher's attitude is important.

E. H. Lewis.

Department of English,
The Lewis Institute, Chicago.

NATURAL SCIENCE.

WILBUR S. JACKMAN.

DURING the autumn quarter, for first-year students, the work in nature study and geography will be combined. The subject-matter of the combined course in the early part of the quarter will be derived from field study covering various areas that lie within reach of the school. For detailed experimental work in nature study a vacant lot, embracing a city square has been selected for a special survey. Beginning the investigation at the close of the growing period, it will be the general purpose to determine what the work of the season has been, both in variety and in amount, and also to study carefully some of the conditions underlying what has been done.

The nature-study survey of the vacant lot will be conducted under the following heads:

1. *The plant life.*— This will include the collecting of examples of all the different kinds of plants found growing in the area. These will be arranged to illustrate various relationships to each other, to the soil, and to the season. An effort will be made, also, to determine the order in which the plants have invaded the lot, dating back to its marsh conditions.

Experiments will be performed to determine approximately how much mineral and organic matter has been built up by the plants into their own structures during the season. Special study will be made of all the devices by which the plants prepare for winter, such as the fall of the leaf, the distribution and planting of seeds, and the underground habits.

2. *The animal life.*—Similar collections will be made of all animal forms that may be found. The relationships of these to each other, to the soil, and to the season will be carefully worked out. How they secure their food, avoid or conquer their enemies, and how they prepare themselves for the winter, are the fundamental questions about which the study will center.

3. *The soil.*— An investigation of the soil and subsoil to a

depth of two or three feet. This will include an approximate determination of its constituents — mechanical, and some of the more easily found chemical elements. This study will include the determination of the amount of water the soil contains, the amount necessary for saturation, the rate of evaporation, and its capillarity.

4. *Sunshine.*— By means of the skiameter the varying intensity of the sunshine for the different months of the growing season will be determined. The condition of the plants and animals during the different periods will be noted; also, the variation of intensity during different hours of the same day.

5. *Rainfall.*— Taking the records of the weather bureau, calculations will be made of the amount of water received by the plants during the growing season. Comparisons will be made with the average for the past thirty-two years of the Chicago weather bureau's records. Using the new weather chart, the student will indicate in colors the distribution and amount of sunshine and cloudiness during the season.

6. *Temperature.*— This will be taken of both air and soil. The temperature of the latter will be taken at different depths down to about three feet. The results of these observations will be plotted on the weather chart mentioned in (5) above, so that the relations will be quite obvious. From the weather-bureau records the air temperature for the season will be similarly plotted.

In addition to this special study of the area selected, the students will be trained also in the use of the barometer, psychrometer, and the instrument used in giving the direction and in measuring the velocity of the wind. The results of these observations will be plotted on the chart mentioned in (5) and (6), which is so designed as to enable the students to represent them in graphic and compact form.

In addition to the foregoing, each student will paint in water colors a history of the landscape as the season advances. This will require, on an average, perhaps one painting a week. Number work and all the various modes of expression will be used when necessary. Students will be required, also, to prepare

experimental work in physics and chemistry where it is needed to explain such natural phenomena as may occur in the course of their nature study survey.

Later in the quarter this work will be followed by lessons on the winter conditions found outdoors; upon clothing and animal coverings; upon heating, lighting, and ventilating of dwellings; and upon fuels and foods. Outlines of these topics will appear later.

The practice teaching in the elementary school will follow the main lines of study indicated for the pedagogic school. In their plans for teaching, students must show a grasp of subject-matter, and also give evidence of some skill in its adaptation to the particular grade in which the lessons are to be taught

GEOGRAPHY.

ZONIA BABER.

FIRST GRADE.

ACQUAINTANCE with this environment.

AUTUMN QUARTER.

I. Lake Michigan: visit lakeshore; lighthouse; life-saving station; passenger boats; cargo boats; steam- and sailboats; piers. (1) Appearance of Lake Michigan in storm; in calm. Pebbles found on shore. (2) Shipping — fruit, grain, ore, lumber. (3) Aid and protection to sailors: lighthouses — kinds of lights, life of keeper; life-saving station — means of attending wrecks; piers — manner of building, effect of ice on piers; of storms.

II. Farming: visit farm. (1) Harvesting of fruits, vegetables, grain; storehouses — corncribs, haymows, grain bins, cellars, burying. (2) Animals — food of; care; use.

SECOND GRADE.

AUTUMN QUARTER.

I. Harvesting: visit farm. Necessity for the storing of grain, fruit, and vegetables. Modes of harvesting.

II. Lake Michigan: visit lakeshore in calm; during storm. (1) Work of waves in making pebbles and sand; kind of material brought during storm; building of beaches. (2) Sand dunes — visit Dune Park. (3) Swamp — life. (4) Prairie.

III. With hunter life in history: the Eskimo as a typical hunter. (1) Appearance of Greenland in winter — glaciers, snow, sunless; in summer — glaciers, flowers, ice flora, icebergs. (2) Homes — winter house; summer house.

IV. Forests: home of Christmas tree. Logging in forest. Hunting in forest.

REFERENCES: (I) Gaye, *Great World Farm;* King, *Soil; Department of Agriculture Transactions*, Vols. XII, XVI, XX, XXIV, XXVII.

(II) Russell, *Lakes of North America;* Davis, *Physical Geography;* Gilbert, *Physical Geography;* Johnston, "Deserts," *Compendium of Africa.*

(III) Mill, *International Geography*, "Greenland," by Nansen; Nansen, *The First Crossing of Greenland;* Peary, *Northward on the Great Ice;* Schwatka, *Children of the Cold.*

(IV) Marsh, *The Wood, Man and Nature;* Andrews, *Louise, the Child of the Western Forest;* Lubbock, *Beauties of Nature.*

THIRD GRADE.

Agriculture — study of farm and farm life.

AUTUMN QUARTER.

I. Fall farming. (1) Threshing — visit farm where threshing can be seen. Threshing of wheat, oats, barley, millet, rice, rye. Modes of threshing — tramping, by men, horses, mules, goats; flail; threshing machines. Pupils thresh wheat, oats, and rice by hand; by tramping; with flail. Stories of regions employing the various primitive means of threshing at present — Japan, Mexico, Palestine, China. Uses of wheat, oats, barley, millet, rice, rye. (2) Corn-harvesting — by husking, cutting, topping. Pupils husk and shock corn. American Indian's manner of corn harvest at present. Maya Indians of Yucatan as a type. Uses of corn — as food; for animals; for man; other commercial products. (3) Autumn planting — pupils plant wheat, oats, corn, rye, rice in garden; note effect of winter. Time of fall planting; why?

II. Farming in forest regions: appearance of evergreen and deciduous forests. Felling of trees; eradicating stumps. Tropical forest — appearance; difficulty of farming in tropic forest.

REFERENCES: "Threshing," *Universal Encyclopædia;* Chamberlain, "Rice," *Things Japanese;* Rein, *Japan;* Williams, *Middle Kingdom;* "Agricultural Machinery," *Iconographic Encyclopædia*, Vol. VI; "The Story of a Grain of Wheat," *St. Nicholas*, Vol. XX, October, 1893; "Farming," *Popular Science Monthly*, Vol. LV; *Forum*, Vol. XV; "Harvesting," *Chamber's Book of Days*, Vol. II, p. 376.

FOURTH GRADE.

AUTUMN QUARTER.

The building of a city; Chicago as a type.

I. Location — on lake; on river; necessity of water highway. Visit harbor, Chicago river; Calumet river, South Chicago. (1) Harbor: method of making and maintaining harbor — breakwaters, dredging. Influence of Chicago river; of Calumet river at South Chicago. Effect of rivers upon harbors by deposition of material. Pupils experiment with running water in laboratory. (2) Canal — necessity of commercial canal; building canal; locks. Visit Illinois and Michigan Canal.

II. Food supply — fruits, vegetables, grains, meats, and other foods: (1) From neighboring truck patches and farms. Visit truck patch and farm. Visit South Water street and large grocery stores. Manner of production of foods grown in this region, as vegetables, plums, apples, peaches, grapes, small fruits, wheat, oats. Meat. Visit Stock Yards to see live animals. (2) From distant farms — sugar, coffee, tea, spices, rice, fruits. Conditions for growth; manner of production. Salt, means of obtaining. (3) From rivers, lakes, and seas — fishes, oysters, crabs, frogs, turtles, lobsters, shrimps. Habitat conditions. Means of culture and catching. Life of fishermen. Visit fish market.

REFERENCES: Kirkland, *Story of Chicago*, 1893; "Chicago as a Grain Market," *Harper*, 1880, Vol. LXI; "Metropolis of the Prairies," *Harper*, 1880, Vol. LXI; Warren, "Studies of the Great West," *Harper*, 1887–88, Vol. LXXVI; Russell, *Lakes of North America;* Russell, *Rivers of North America;* Davis, *Physical Geography;* Salisbury and Alden, *Chicago and its Environs;* Adams, *Commercial Geography;* "History of Canals," *Knight's American Dictionary;* "Canals," *Universal Encyclopædia;* "Canals," *Iconographic Dictionary;* Blackie, *Tropical Readers*, 1, 2; Thorp, "Sugar," *Industrial Chemistry;* "Beet Sugar," *Report of the Department of Agriculture*, 1897; Annual Reports of the Department of Public Works of Chicago.

FIFTH GRADE.

AUTUMN QUARTER.

North America interpreted through Chicago and its environs.

I. Lake Michigan, waves and currents: (1) Building coast: visit south shore and Dune Park. Beach ridges; sand bars, sand spits, sand dunes: associated lagoons; movement of dunes; means of overcoming movement. Building coasts of North America; locate sand-dune regions; account for position. Locate coastal plain of North America — formation and appearance of coastal plain; value for culture. (2) Wearing coasts: visit north shore. Formation of sea cliff, sea cave, terraces. Locate cliff coast of North America. Formation and extent of continental shelf. Effect of secular rising and sinking upon coast lines. Coast best adapted for good harbors; locate good harbors of North America.

II. Rivers: work; use. Visit ravines at north shore; Des Plaines river; Calumet river near Thornton. Formation of valley — young, mature, old; falls, rapids, terraces, flood plain, delta. In out-of-door laboratory pupils solved problems of stream degrading and aggrading.

REFERENCES: Davis, *Physical Geography;* Tarr, *Physical Geography;* Gilbert, *Physical Geography;* Mill, *Realm of Nature;* Mill, *International Geography;* Gilbert, "Henry Mountains," *U. S. Geologic Survey;* Salisbury and Alden, *Ghicago and its Environs;* Russell, *Lakes of North America.*

SIXTH GRADE.

In connection with the study of the American revolutionary war, a special study of that part of North America intimately concerned; with the study of the struggle for freedom of the Greeks, Swiss, and Dutch, special study of that part of Europe involved. Through interest in current events, a study of West Indies, volcanoes, mountains, the Orient. Interpretation of this environment.

AUTUMN QUARTER.

I. Eastern United States and St. Lawrence river basin: (1) Topography — mountains, hills, valleys, plains. Effect of topography upon cultural

development. (2) Rivers — stage of erosion; influence on cultural development of region. Visit north shore, Calumet river near Thornton, Des Plaines river. Special study of Hudson river, St. Lawrence river, Delaware river. (3) Glaciers — effect upon eastern United States and Canada. Visit Barrington, Ill.; Stony Island. (4) Harbors along Atlantic coast; effect of coast line upon cultural development. (5) Climate. Study daily weather maps of United States: movements of storms; seasonal changes; make record of weather condition of Chicago.

II. West Indies: location — position in regard to North America, South America, Europe. Value of geographic position. (1) Greater Antilles — position; topography; mountains — direction of ranges in relation to mountains of North America, South America, Central America. Mountain-making — process of mountain formation. Make folded mountains in laboratory. Coral growth — conditions of temperature, relation of reefs to main land. Climate — temperature, prevailing winds, rainfall. Product — sugar cane, tobacco, tropic fruits. (2) Lesser Antilles — location; formation; volcanoes; condition during eruption; effect of lava flow; effect of eruption of ash and gas. Earthquake association — tidal waves. Most important islands of the Lesser Antilles.

REFERENCES: Mill, *International Geography;* Davis, *The Physical Geography of Southern New England,* "National Geographic Monographs;" Willis, *Appalachian Mountains, Northern Section,* "National Geographic Monographs;" Hayes, *Appalachian Mountains, Southern Section,* "National Geographic Monographs;" *Compendium of North America;* Davis, "Rivers," *Physical Geography;* Shaler and Davis, *Glaciers;* Lubbocks, *Beauties of Nature;* Geikie, *Great Ice Age;* Shaler, "National History of Harbors," *Geol. Surv.,* 13th Ann. Rept., 1893.

West Indies: Hill, *Cuba, Jamaica and Porto Rico, with Other Islands of the West Indies;* Hill, "Geology of Cuba," *Bulletin,* Vol. XVI, No. 15, Museum of Comparative Zoölogy, Cambridge; Hill, "Geology of Jamaica." Vol. XXXIX, *ibid.;* Hearn, *Two Years in the West Indies;* Patton, *Down the Islands;* Kingsley, *Westward Ho!* and *At Last;* "Cuba," *National Geographic Magazine,* May, 1898; "Martinique," *National Geographic Magazine,* July, 1902; "Martinique," *Century Magazine,* September, 1902.

SEVENTH GRADE.

Through the interest in this environment, current events and historic study of crusades, Marco Polo, and the period of exploration — a study of Eurasia, Africa, North and South America, and the beginning of mathematical geography. Make contour map of Stony Island.

AUTUMN AND WINTER QUARTERS.

I. A detailed study of the geographic types found in accessible region as Stony Island; sand dunes; lakeshore; river basins, as to genesis and influence upon life.

REFERENCES: See fifth and sixth grades.

II. Eurasia: a detailed study of region traversed by crusaders and by Marco Polo.

REFERENCES: See sixth grade.

III. Africa: terrestrial position; relation to eastern continental mass; size; influence upon development. Coast line; influence of regular coast line upon cultural development. (1) Highlands—plateaus, mountains; influence of the continental and minor plateaus upon life-development; poverty of well-defined mountain ranges compared with other continents. (2) Drainage—Nile river basin; Niger river basin; Congo river basin; Orange river basin; Zambezi river basin; Limpopo river basin; effect of the youthful state of erosion of African rivers upon its present state of civilization. Special study of the Nile river basin; location; source of river; cataracts, cause; flood plain, delta, value to Egypt; inundation of Nile, value of barrage; cause of overflow—influence of Abyssinian plateau and the lake region. (3) Climate—temperature, influence of the high continental plateau. Latitudinal influence. Winds, regular and monsoons; rainfall. (4) Deserts—Sahara, size; cause; influence upon remainder of continent, upon southern Europe. Surface; oases; products. (5) Morocco, Algiers, Tunis, Tripoli—topography; climate; products. (6) Soudan and central Africa—topography; climate; natural products; people. (7) Southern Africa—cause of advancement in colonization; location; topography; climate; natural products; people. (8) Distribution of European colonial possessions; of native states, account for position of each. Cause and result of late south African war.

REFERENCES: Keane, "Africa," *Stanford's Compendium;* Mill, *International Geography;* Keltie, *Partition of Africa;* White, *Development of Africa;* Reclus, *Earth and its Inhabitants;* Mill, *Realm of Nature;* Broderick and Sayce, *Murray's Handbook for Egypt:* Milner, *England in Egypt;* Johnston, *British Central Africa;* Drummond, *Tropical Africa;* Johnston, *The Congo River;* Stanley, *The Congo Free State;* Noble, *Illustrated Official Handbook of the Cape and South Africa;* Whiteside, *A New Geography of South Africa;* Wallace, *Farming Industries of Cape Colony;* Bryce, *Impressions of South Africa.*

EIGHTH GRADE.

The earth, the stage of human action. With history, special study of Europe, southwestern Asia, and northern Africa. With current events, geography of the earth.

AUTUMN AND WINTER QUARTERS.

I. The earth — distribution of continents; islands; oceans; value of present arrangement; other positions which might seem an improvement for present state of civilization. (1) Australia— position; relation to regions of advanced civilization; physical features, arrangement of mountains; plains, conse-

quent drainage basins; climate, temperature, cause; rainfall, deficiency, cause; simple geologic story; political conditions; cities. Australia's influence upon United States. (2) Islands — distribution of oceanic, continental; formation. Considering present position of human progress, would a different distribution of islands be advantageous? Effect were many islands located in Atlantic between North America and Europe. Suppose Polynesia were moved to northern Pacific, effect. Distribution of coral islands — special study of Bermuda and Marshall Islands as types. Distribution of volcanic islands; study Hawaii as a type. Present international interest in islands; islands of special interest to the United States, value to United States; special study of Cuba, Porto Rico, St. Thomas, Philippines. (3) Highlands — mountains and plateaus of the earth; distribution of highlands of continents of the earth; influence of highlands upon cultural progress of various continents. Distribution of lowlands; influence upon state of civilization of various continents. (4) Rivers and lakes — distribution of great lake regions and large rivers of the world; formation and destruction of lakes. Rivers best adapted for navigation; influence of such on region traversed. Means of making a river navigable; river's means, man's ways; ways of changing a navigable to an unnavigable stream; natural way, man's way. Distribution of large rivers which are not navigable — causes; effect on country traversed; upon topography; upon life; cultural value of a river in youthful stage of erosion; genesis and death of falls; noted falls which are at present being utilized. Distribution of flood plains and deltas of the world; present importance to society; historic value; genesis of flood plains and deltas. (5) Glaciers — distribution of existing glaciers of earth; cause for location; movement and work of glaciers. Areas influenced by continental glaciers; effect of results of past glaciation upon present culture development; influence of present glaciers upon life of environment; scenic value. (6) Volcanoes — distribution of the earth's volcanic belts; extent of recent seismic disturbances; describe eruption of Montagne Pelée, Vesuvius, Krokatoa, Mauna Loa, H. I.; theories of origin of volcanoes; value of volcanoes. (7) Climate — analysis of climatic control in this region; change of temperature, cause; change of direction of wind, cause; rainfall, cause. Terrestrial winds, regular and monsoon's relation to terrestrial "high" and "low" pressure; to heat; to moisture. Rainfall — cause of unequal distribution; regions of great rainfall, of medium rainfall, of little or no rainfall; influence of each region upon present social conditions, upon primitive peoples. Influence of heat and moisture tension areas upon present and past human development.

REFERENCES: Mill, "Australia," *International Geography;* Barton, *Outlines of Australian Physiography;* Ranken, *Federal Geography of British Australasia; Compendium of Australasia;* Gordon and Gatch, *Australian Handbook;* Saville-Kent, *The Great Barrier Reef of Australia;* Reclus, "Australia," *Earth and its Inhabitants, Oceanica;* Davis, "Islands," *Physical Geography;* Lubbock, "Coral Islands," *Beauties*

of Nature; Reclus, *The Ocean;* Wallace, *Island Life;* Forbes, *Naturalist in Eastern Archipelago;* Dana, *Coral and Coral Islands;* Darwin, *Bermuda;* Agassiz, *A Visit to the Bermudas in March, 1894;* Heilprin, *The Bermuda Islands;* Rice, "Bermuda," *National Bulletin*, No. 25; Mill, "Marshall Islands," *International Geography;* Dutton, "Hawaiian Volcanoes," *U. S. Geol. Surv.*, 4th Ann., 1882–88; Alexander, "Hawaii," *Islands of the Pacific;* Dana, *Characteristic Volcanoes;* Bishop, *Hawaiian Archipelago;* Maxwell, *Lavas and Soils of Hawaii;* Judd, *Volcanoes;* Hull, *Volcanoes;* Davis, "Mountains," *Physical Geography;* Reclus, *History of a Mountain;* Hutchinson, *Story of the Hills.* (For rivers and glaciers see references for sixth and seventh grades.) Davis, *Elementary Meteorology;* Waldo, *Elementary Meterology;* Geikie, *Physical Geography;* Ferrel, *Popular Treatise on Winds.*

HISTORY IN THE ELEMENTARY SCHOOL.

EMILY J. RICE.

KINDERGARTEN.

REPRODUCTION of home life by means of plays. Building of playhouses with blocks, and making of furniture with cardboard, raffia, and wood.

Visits to farms, shops, and buildings in the process of construction.

Dramatization of neighborhood activities, as the life of the fireman, the postman, and the newsboy.

Literature.—Stories of home life and of household work; fairy stories.

REFERENCES: *Elementary School Record*, No. 5; ELEMENTARY SCHOOL TEACHER, Vol. II, Nos. 4, 5, 6.

FIRST GRADE.

Making of playhouses. For each child a box will be furnished, twenty inches wide, fifteen inches high, and ten inches deep, and divided by a partition into two floors. The children will divide each floor into two rooms, cut windows, make staircases, and decorate walls.

Observation of modern house-building, and visits to the Field Columbian Museum, to see primitive houses. Study of primitive industries: Indians, cliff-dwellers, Eskimos, Arabs.

Construction of furniture with cardboard, wood, and raffia, rug-weaving in raffia and wool, and making of pottery. Study of materials used.

Planning of village and playing at buying and selling. Interchange of commodities and division of labor. Play with finished village.

Literature.— Stories of industry and invention; myths and fairy stories.

REFERENCES: Viollet-le-Duc, *Homes and Habitations of Man in All Ages;* Morgan, *Houses and House Life;* Starr, *Some First Steps in Human Progress;* Mason, *Origins of Invention;* Tyler, *Anthropology;* Harwood, "The Story of a Pine Board," *St. Nicholas*, Vol. XXV, p. 20.

SECOND GRADE.

Spinning, dyeing, weaving, and simple needlework as occupations.

Primitive processes in the textile industry. Shepherd life: property in flocks and herds; wanderings; social organization; the patriarch; dwellings; spinning and weaving; clothing; exchange. Stories of the Hebrews and of the Arabs.

Hunter life: food-getting; fire-making; shelter; tools; utensils; clothing: social organization. Stories of the Indians.

Beginnings of agriculture, trade, and navigation.

Literature.—Stories from the Bible; Baldwin, *Old Stories of the East,*

and "Arachne," from *Old Greek Stories;* Andrews, *Seven Little Sisters;* Waterloo, *Story of Ab;* Emerson, *Indian Myths.*

REFERENCES: Mason, *Woman's Share in Primitive Culture;* Doughty, *Arabia Deserta;* Sven Hedin, *Through Asia;* Mumford, *Oriental Rugs;* Holt, *Oriental Rugs;* "A Suit of Clothing," *Harper's,* Vol. LXXX (1890), p. 685; Joly, *Man before Metals;* James, *Indian Basketry.*

THIRD GRADE.

Occupations: cooking, gardening, and making pottery. Visits to farms and shops.

Study of materials used in cooking and of methods of production as seen at farms. The city as a center for distribution. Means of transportation. Settlement of a western farming community. Story of Abraham Lincoln.

History of agriculture. Methods of obtaining food with primitive tools. Development of the plow and of the mill. Primitive methods of cooking and of making pottery.

Flax and cotton culture. Agriculture in ancient Egypt.

Literature.—Stories from the *Odyssey;* Cook, *The Story of Ulysses;* Hawthorne, "The Pomegranate Seeds," *Tanglewood Tales; Story of Luca della Robbia,* and of *Palissy the Potter;* Ouida, *The Porcelain Stove.*

REFERENCES: "Agricultural Machinery," *Iconographic Encyclopædia,* Vol. VI, p. 177, plates 1–8, 56–60; Abbott, *Primitive Industry;* Small and Vincent, "The Family on the Farm," *An Introduction to the Study of Society;* Binns, *The Story of the Potter;* Wilkinson, *Ancient Egyptians,* Vol. II, pp. 377–429; Chase and Clow, *Stories of Industry;* The *Odyssey* (translated by Palmer).

FOURTH GRADE.

Inventions that have developed means of intercommunication: printing, books, boats, railways. Stories of famous explorers: Marco Polo, Columbus, Magellan.

Necessities of city life: water-supply; illumination; streets; bridges; protection—fire, police, sanitation.

The early history of Chicago: French explorers, Marquette and Joliet, La Salle; Fort Dearborn; village life.

Art: making of boats, cars, roads, bridges, in wood and metal work.

Literature.—Viking stories; Baldwin, *Story of Siegfried;* Kipling, "The Ship that Found Herself," *The Day's Work;* Howells, "The Pony Engine," *Christmas Every Day in the Year;* Catherwood, *Story of Tonty* and *Heroes of the Middle West;* Kipling, *Jungle Book.*

REFERENCES: Seelye, *Columbus;* Fiske, *Discovery of America;* Payne, *History of America,* Vol. I; Brooks, *Marco Polo;* Yule, *Marco Polo;* Knox, *Marco Polo;* "Fergus Papers," Chicago Historical Society; McMurry, *Pioneer History Stories;* Hinsdale, *The Old Northwest;* Winsor, *The Mississippi Basin;* Parkman, *La Salle and the Great West;* Baldwin, *The Conquest of the Old Northwest;* Parton, *Captains of Industry;* Bross, *History of Chicago;* Moffatt, "Careers of Danger and Daring," *St. Nicholas,* Vol. XXVIII.

FIFTH GRADE.

Observation of the methods of cloth manufacture at the present time. Making of looms and weaving of useful articles. Weaving on colonial loom.

History of inventions in the textile industry. Home life in colonial times. A New England farm and village. Effects of physiographic features upon industries and social life. Stories of the pioneers. The town-meeting.

A Virginia plantation contrasted with a New England farm. Geography of the tide-water region.

The Dutch settlements in New York and the geography of the Hudson river valley. Movement of the pioneers toward the West. Routes and methods of travel.

Literature.— Longfellow, *Miles Standish;* Austin, *Standish of Standish;* Hawthorne, *Grandfather's Chair;* Harris, *Nights with Uncle Remus;* Irving, *Rip Van Winkle, Sleepy Hollow, Knickerbocker History of New York.*

REFERENCES: Earle, *Home Life in Colonial Days;* Smith, *Colonial Days and Ways;* Fiske, *The Beginnings of New England, Old Virginia and Her Neighbors, The Dutch and Quaker Colonies;* Weeden, *Economic and Social History of New England;* Bruce, *Economic History of Virginia in the Seventeenth Century;* Doyle, *English Colonies in America;* Lodge, *Short History of the English Colonies;* Eggleston, *Beginners of a Nation;* Page, *The Old South.*

SIXTH GRADE.

The union of the colonies and their struggle for freedom. The geography of the Atlantic seaboard in its relation to the Revolutionary War. Typical stories of heroic action.

Other stories illustrating patriotism and courage. The Greek wars against Persia. The city of Athens. Greek education and games. Our civic buildings and their decorations.

The Swiss struggle for independence. William of Orange and the siege of Leyden.

Art: Modeling and casting of tiles illustrative of colonial history. Reproduction of Greek buildings in clay and wood.

Literature.— Longfellow, *Paul Revere's Ride, Building of the Ship;* Emerson, *Concord Fight, Boston Hymn;* Holmes, *Grandmother's Story of Bunker Hill Battle;* Cooper, *The Last of the Mohicans;* Kaufman, *Our Young Folks' Plutarch;* the *Iliad* and the *Odyssey;* Browning, *Pheidippides.*

REFERENCES: *The War of Independence, The American Revolution;* Lodge, *The Story of the American Revolution;* Tyler, *The Literary History of the American Revolution;* Guerber, *The Story of the Greeks;* Guhl and Köner, *The Life of the Greeks and Romans;* Mahaffy, *Old Greek Education;* Whitaker, "Young Greek Boys and Old Greek Schools," *Popular Science Monthly*, Vol. LXXX, p. 809; Motley, *Rise of the Dutch Republic.*

SEVENTH GRADE.

Printing, illuminating, and bookbinding the special occupations of the grade.

Invention and history of the art of printing. History of bookbinding. Illuminated manuscripts. Rarity of books in the Middle Ages and teaching by means of pictures. Mural decorations. Giotto's paintings of St. Francis of Assisi. The city of Venice. Renaissance art.

The Crusades. Routes of trade from Venice eastward and northward. Nuremberg. Marco Polo. Explorations of Prince Henry of Portugal. Columbus. Magellan.

The westward movement of the American colonists. The Appalachian barrier and routes of travel across it. Settlement of Kentucky and the Northwest Territory. A typical settlement. The city of Washington. Improvement in modes of transportation. The cotton industry and the unification of the South. The mining industry and the Far West. Industrial development since the Civil War.

Literature.— Aldrich, *Friar Jerome and His Beautiful Book;* Longfellow, *The Sermon of St. Francis, Giotto's Tower, Nuremberg;* Scott, *Ivanhoe, The Talisman, Marmion;* Tennyson, *Idylls of the King;* Lanier, *The Boys' King Arthur.*

REFERENCES: Buchot, *The Book;* Putnam, *Books of the Mediæval Ages;* La Croix, *The Arts of the Middle Ages;* Labarte, *Illustrated Handbook of the Arts of the Middle Ages;* Winsor, *Narrative and Critical History of America;* Fiske, *Discovery of America;* Payne, *History of America*, Vol. I; Sparks, *Expansion of the American People;* Roosevelt, episodes from *The Winning of the West;* Roosevelt, *The Winning of the West;* McMaster, *History of the People of the United States;* Schouler, *History of the United States;* Wright, *Industrial Evolution of the United States;* Turner, "The Significance of the Frontier in American History," *Fifth Yearbook of the National Herbart Society*, 1899.

EIGHTH GRADE.

Roman history with the study of Latin. Development of the Roman republic.

Current history leading to the study of international relationships and world-geography.

In connection with home economics, which furnishes the special occupation for the grade, study of the house and its evolution. Care of school building and grounds. Investigation of city building laws and parks and playgrounds.

Literature.— Macaulay, *Lays of Ancient Rome;* Shakespeare, *Julius Cæsar;* Whittier, *Snowbound;* Lowell, *The Vision of Sir Launfal;* Longfellow, *Keramos;* Holmes, *The Chambered Nautilus.*

REFERENCES: Harding, *City of Seven Hills;* Guerber, *Story of the Romans;* Mommsen, *History of Rome;* Gardner, *Houses and All about Them;* Cook, *The House Beautiful;* Wharton and Codman, *Decoration of Houses;* Wheeler, *Household Art; The Studio; The House Beautiful; Revised Code of Chicago;* Campbell, *Household Economics*, p. 20; Courier, *Practical Hygiene*, p. 140; Tsanoff, *The Playground Movement;* "Housing Problems in Cities," *Municipal Affairs*, March, 1899.

MATHEMATICS IN THE PROFESSIONAL SCHOOL.

GEORGE W. MYERS.

THE outlines which follow are intended only for the work of the professional school. The nature and scope of the mathematical work in the elementary school may be learned from the grade teachers' outlines to be published next month.

The need of the prospective mathematical teacher endeavoring, by a study of modes of presenting his work to pupils, to select and use only the best methods, has been warmly contested by good educational authority, but it is now generally conceded to be a part of his professional duty. The claim that a knowledge of subject-matter is all that is needed to insure professional efficiency in the mathematical teacher is nowadays confined, for the most part, to those whose preparation for professional service has been more or less faulty, and to the born teacher. The latter type is, of course, incapable of improvement, inasmuch as man cannot presume to improve upon the work of God. Strange to say, however, even the teachers by divine right are learning that native skill may be heightened by the right sort of training, while mere practice, unguided by trained intelligence, may go far to destroy heaven's handiwork.

If, however, the need of professional training for the teacher in general be conceded, it must be conceded to exist with twofold urgency for the teacher of elementary mathematics. Every argument for pedagogical study which applies to subjects in general applies with full force to mathematics. Furthermore, the teaching of no subject seems so prone as is mathematics to degrade into a sort of mere device-exemplifying and device-parading practice. The science which treats of the *form* of knowledge, it easily falls prey itself to a dead formalism. Of all the school subjects, sciences, or literatures, mathematics, therefore, is the most likely to fall under a system of mechanical routine. Hence it is the most difficult subject to present in such way as to call for the exercise of the reasoning faculties.

Moreover, unless mathematics can be so presented as to do this at every step, it loses its claims to a place in education. This is true, notwithstanding the fact that "mathematics is the science of *pure* reason," "the science of necessary conclusions," etc., because the *manner* of teaching a mathematical subject is even more important than the *matter*.

Form is many-sided; it presents many aspects to study. Mathematical subjects are, consequently, capable of a many-sided treatment. The prevailing idea that the whole problem of mathematical teaching can be given in a nutshell is very alluring, but very incorrect. In the course of years, mathematical teachers, who cater to *teachers* rather than to *teaching*, succeed in agglomerating their devices into a sort of plum-pudding composite which is very enticing to uneducated tastes. This has been the bane of mathematical teaching and the pitfall of the undiscriminating candidate for mathematical preferment. The pedagogical result of such practice is a crop of artificial devices reduced to text-book form, and labeled by the inventor a new method, calculated to revolutionize mathematical teaching. The professional outcome is a host of young teachers foisting fragmentary and second-hand notions of number upon children. The work done by this artificial product must all be undone later by such pupils as remain in school, while sound and complete notions of number must be implanted at a later period; but this is no check to the deviceful pedagogue, and so the unwholesome product grows on apace.

The situation cannot grow better in the elementary school until teachers cease laboring more diligently to evade a thorough grounding in both mathematical subject-matter and methodology than is necessary to master the whole field. Less method, and at the same time more method; less arithmetic, and more arithmetic, are the crying needs of even the best elementary schools of today. Method of the right sort, method built upon a sound knowledge of the subject, has promise in it; but without this foundation in knowledge it is, in many respects, worse than an entire lack of it. May the day speedily come when the proper sequence of subjects for the training teacher shall be

recognized by us all, and when the proper balance between scholarship and pedagogical training shall be struck!

The work of the first course outlined below will be academic. It will proceed on the assumption that suitable problems, dealing more with the affairs of modern life and less with pure imagination, promise more for the improvement of the teaching of arithmetic than do device-hunting and device-formulating. A notion of the subjects from which problems will be drawn may be derived from the list below. The character of these subjects will suggest the importance of teaching the pupil of arithmetic, among other things in the way of process and operation, also how arithmetic may be used to assist in the study of almost any subjects he may care to learn, and how and why it is that a good degree of arithmetical proficiency will be of service in any pursuit of life.

TOPICS FOR PROBLEMS.

1. Simple scale drawing.
2. City blocks and lots.
3. Paving streets.
4. House and furnishings.
5. Cost of living.
6. Farm account keeping.
7. Dairy farming.
8. Habits of animals.
9. Growth of twigs.
10. Vital statistics (death-rate).
11. Physical measurements.
12. Manual training.
13. Wind pressure.
14. Snow loads on roofs, roofing.
15. Thermometry.
16. Meteorology.
17. Nov. meteors.
18. Sun spots.
19. Barometer.
20. Levers, etc.
21. Graphical representation.
22. Statistical studies.
23. Geometrical surveying.
24. Time, latitude, and longitude.
25. Domestic science.
26. Laboratory work.
27. Observational astronomy.
28. Elementary algebra.
29. Changing slant of sun's rays.
30. Graphical representation of equations.
31. Graphical representation of physical laws.
32. Steam engine.

Teachers will be required to select topics from this list and prepare sets of problems of such character as to build up a knowledge of the subject in the learner's mind.

The result will be sets of problems bearing on a single subject, each problem being a step in the process of unfolding the subject to the child. They will be miscellaneous as to process, and at the same time organically related as to thought-content.

In accordance with what has just been said, the mathematical course for the autumn quarter is academic in character and is to be followed during the winter by a pedagogical course based upon it. The class work in mathematics during the autumn will follow the lead of the other subjects so far as this is feasible. Essential requirements for substantial mathematical work are connectedness and continuity. To secure these desiderata the development of the course will also have a trend and unity of its own, the material for problems drawn from the work in the other subjects being organized and handled in an orderly and systematic way with reference to mathematical content. The right sort of correlation of subjects does not mean haphazard work, though too often it degenerates into an aimless scattering of the pupil's energy.

OUTLINES.

The mathematics of the professional school for the year will be given in three courses:

I. An academic course in elementary mathematics.

II. Pedagogy of elementary mathematics.

III. Pedagogy of secondary mathematics.

These courses will succeed each other in the order of this enumeration.

The first of the three courses will include a survey of the mathematical topics which should be taught in a modern elementary school, together with a detailed study of such of these topics as time and circumstances will permit. The course having been planned primarily for teachers whose mathematical training has been faulty, or whose mathematical equipment is in need of a little burnishing, it will call for considerable real work in the solution of practical and modern problems. The plan of work will consist in the assignment to individual teachers of topics such as are enumerated a few paragraphs above for study and report, the teacher being required to make use of such arithmetic, algebra, or geometry as is needed to make the topic intelligible to children. The report will be criticised and discussed, then returned to the teacher for correction, if necessary; when satisfactory, the teacher may present it to a class. The

object of such work is evidently to train teachers in the preparation of material of their own for mathematical teaching, as well as to convince them, and indirectly pupils also, that mathematics will assist one in the achievement of almost anything he deems important in life. It means the teaching of arithmetic less for its own sake and more for the sake of the pupil's education. It means in a sense that mathematics is being subordinated to the demands of the other subjects and to the needs of the pupil; but this is not the only instance in which a science must for a time lose sight of its own interests that it may truly find them. In short, the aim will be to make the mathematics helpful to the other work—or rather to the pupil's educational interests—as a whole, but still to keep the work mathematical in its method and spirit.

The autumn quarter's work will be discussed and, so far as the foregoing plan will admit, will be presented under three subordinate headings: In October, "Mathematics of Grades 1, 2, and 3;" in November, "Mathematics of Grades 4, 5, and 6;" in December, "Mathematics of Grades 7 and 8."

The outlines which follow are not intended to indicate more than the general scientific and pedagogic principles in accordance with which the specific work of the class will be organized and administered. Perhaps the idea of the outlines can be best conveyed by the statement that they are intended to indicate only the order of ideas emphasized in the evolution of the numbering and relating faculties of the child.

A. OCTOBER OUTLINE.

I. Indefinite comparison of lines, surfaces, solids, and general objects.

II. Counting, numbering, crude measuring.

III. Definite comparison of lines, surfaces, etc.

IV. Measurement—direct and indirect; (1) linear, (2) surface, (3) solid, (4) weight, (5) time, etc.

V. Addition and subtraction of whole numbers from 1–12.

VI. Relating of (*a*) measured magnitudes, (*b*) of quantities.

VII. Multiplication by 5; by 2; by 10.

VIII. Division facts correlative with these multiplication facts.

IX. Standard units and tables used: (1) cubic, liquid and dry measure, (2) weight, (3) United States money, (4) time.

X. Beginnings of addition, subtraction, multiplication, and division as arithmetical operations.

XI. Elementary uses of arithmetic.

XII. Addition and multiplication tables completed in the order the 4s, 11s, 12s, 3s, 6s, 9s, 8s, and 7s.

PEDAGOGICAL COURSE.

This course will take up a careful study of the principles in pursuance of which the work of the foregoing was planned. It will consider the place, kind, amount, and relation of the mathematics of the elementary school. It will enter into the psychology of number work to such an extent as the attainment and maturity of the class warrant.

Some knowledge of the way in which arithmetic, algebra, and geometry have come into their present place and relation in the curriculum is needed by every teacher of mathematics who aspires to some degree of proficiency in his work. Something of the history of the aims and purposes of elementary mathematical study will therefore be given.

The subject-matter of the course will be distributed and taken up under these heads:

A. History of elementary mathematical teaching.

B. Methodology of current teaching.

C. Psychology of elementary mathematics.

ADDENDUM.

Proposed course for special teachers in mathematics and for mathematical supervisors:

REQUIRED WORK.

	Two-Year Course.	Three-Year Course.
Mathematics	6 Mj.	8 Mj.
Nature study	1 Mj.	2 Mj.
Geography	1 Mj.	2 Mj.
Geology	0	1 Mj.
Domestic science, or chemistry	1 Mj.	1 Mj.
Physics	1 Mj.	2 Mj.
Astronomy	1 Mj.	1 Mj.
Surveying and navigation	0	1 Mj.
Psychology and education	2 Mj.	4 Mj.
Total	13 Mj.	22 Mj.

This scheme of courses is arranged to meet the needs of two classes of persons: (*a*) those who can afford the time (three years) necessary for thorough preparation for mathematical teaching in the public schools below university grade; and (*b*) those who can spare but two years for preparation.

In either of the courses five majors may be elected from any courses in schools or departments of the university for which the candidate is prepared.

Two of the six mathematical majors of the two-year course and three of the eight majors of the three-year course must be taken in the School of Education.

HOME ECONOMICS.

ALICE P. NORTON.

THE experience of the past year has shown that the work in cooking is particularly valuable in two directions: it aids in the social life of the school, and it suggests many problems in science and number, and furnishes a strong motive for their solution. The work for this year is planned largely with these immediate objects in view; the ultimate aim is always to bring the children into closer touch with their home life, and to make them more efficient citizens.

It must be remembered that the cooking and the work growing out of it represent by no means all that is done in the school in home science. From the kindergarten up, much of the work in history, sociology, and nature study pertains to the life and occupations of the home.

The responsibility for the orderliness and neatness of the schoolroom that is enjoined, and the care of desks and personal belongings asked of the children, involve the teaching of many of the principles of housekeeping. Every opportunity afforded by the daily recurring needs of the school, or by emergencies which arise, is utilized. The removal of the ink accidentally spilled upon the floor, for example, or of the scratch made on the polished surface of the desk, furnishes a reason for lessons on the care of woods, and makes such lessons more valuable because the necessity for them is seen.

Because of the difficulty of foreseeing the nature of this kind of work the outline given is chiefly for the cooking, since that can be more definitely planned.

The work of each year involves experience with the different food principles; the making of recipes; the solving of the number problems that arise; experiments to illustrate the principles of cooking, or to prove or disprove disputed points. In the primary grades number and reading are important accessories

of the cooking lesson, while in the upper grades the science problems predominate. The thermometer is used freely in all the grades, and the microscope is frequently brought into use with the older children. In all the grades cooking for luncheons, and for special occasions such as Thanksgiving and Christmas, makes an important part of the work.

KINDERGARTEN.

No regular time is assigned for cooking in this grade, but the children make cookies for birthdays, simple candies for Christmas, and do such other work as occasion demands.

FIRST AND SECOND GRADES.

Work is chosen for these grades that requires comparatively little manipulation. The processes used are simple, and the judgments required are of an elementary nature. The work is nevertheless based on the fundamental scientific principles of observation and experiment.

In the first grade the work will consist, in part, of the drying of fruit for winter use and of the cooking of dried fruits; the baking of apples and of potatoes; the popping of corn and making of barley candy for Christmas; the toasting of bread; preparing a baked custard; and the making of cocoa for luncheons.

The second grade will roast apples and potatoes in an oven constructed by themselves out-of-doors; will make apple jelly; boil potatoes and rice; pop corn and make it into corn balls; make cream candies for Christmas; prepare lemonade for a party; cook eggs in some form; and make cocoa.

THIRD GRADE.

As in all the grades, the first work in the fall will be with the fall fruits, and grape jelly and grape juice will be prepared by this class. The work of the year will be chiefly carried on in connection with the study of the farm and of farm life. The cooking of cereals, the making of wheat bread, the use of flour in thickening — illustrated by the making of white sauce, and the combination of this with vegetables, as tomatoes, potatoes, celery, in soups for luncheon — will constitute a large part of the

work. More problems to be solved will occur in this grade, and will lead to the separation of the gluten from flour, and the baking of it, and to simple experiments with yeast and with starch.

FOURTH GRADE.

The children of this grade will prepare for winter by canning tomatoes grown in their own garden. In connection with their study of some of the industries of Chicago they will work especially with milk and milk products. They will make butter, sour-milk cheese, and rennet custard. They will also study albumen in egg and in meat, and like the third grade, will prepare soups for luncheon.

FIFTH GRADE.

The cooking in the fifth grade will be largely illustrative of the work in colonial history. The typical dishes of New England and of the southern colonies will be reproduced to some extent. Pumpkin for the Thanksgiving pies will be prepared and fruit canned for the winter. Vinegar will be made from apple juice, and will be used in preserving fruit by means of pickling, and in making vinegar candy for Christmas.

SIXTH GRADE.

The fruit cookery will consist of the canning and preserving of different fruits in different ways. Experiments with the keeping of fruits under different conditions will lead to the beginning of the study of fermentation. This will be followed by work with doughs and batters, and methods of lightening them. Bread, cake, and pastry for the Thanksgiving pies will be included. The study of fermentation begun with the fruits will be carried farther in connection with the use of yeast in bread-making. Some of the properties of carbon dioxide will be considered, and simple experiments with baking powder will be tried. A visit to a flour-mill will continue the study of the chief ingredient in the doughs made.

SEVENTH GRADE.

The experiences of the former years with the different food principles will in this year be gathered up and systematized.

The work in cooking will be from the standpoint of the right application of heat to the different food principles. Part of the year will be spent in simple food analysis. Charts will be made for the museum showing the proportion of water, carbon, and ash in some of the common foods. Food-values will receive more emphasis than in the lower grades.

EIGHTH GRADE.

There will be little or no cooking in the eighth grade. A short study of food and its use in the body as fuel and nutrition will be followed by lessons on the house. The modern home will be studied in comparison with that of the past. The changes in the household brought about by modern scientific discoveries; the heating, lighting, and ventilation of our houses; and the way to make the house beautiful, are some of the topics that will be taken up.

PEDAGOGIC CLASS.

The work of the pedagogic class will be based directly upon that of the grades. It will include (1) a study of the relation of the work to other subjects and to the life of the school; (2) work in cooking selected from that given in the grades and experiments growing out of this; (3) subject-matter necessary to enable the teacher intelligently to direct the cooking in the grades, especially the study of food principles and of food-values.

OUTLINE OF COURSE FOR TRAINING KINDERGARTNERS.

BERTHA PAYNE.

THIS course is based upon three fundamental propositions: first, that there is a unity of educational principles; second, that a certain amount of training in general educational theory and practice should precede specialization in the theory and practice of any specific subject or grade of teaching; third, that the kindergartner's professional training should be given by a faculty of specialists, all of whom are studying the problem of the adaptation of subject-matter to all grades.

It might seem that, in the interest of economy of time, the student should study only the grade work in which her inclination prompts her to perfect herself, and devote herself from the first to study of the psychology and pedagogic problems belonging to one period of childhood. Certainly the kindergarten has its peculiar function. The psychology of the play period of growth, the special significance of that period, and the problem of adaptation of subject-matter to this age offer ample scope for study. Yet when the kindergartner has studied educational principles in the light of this one period of childhood, she is apt to either over or under the mark in her selection of material and shoot in her demands upon intellectual effort. Material is often selected that a wider experience with older children would show better adapted to maturer minds, while experiences are often deferred that would best be assimilated in the kindergarten groups.

The true spiral of growth must be apprehended in order to follow it with coincident material and opportunities for activity; therefore it seems most desirable that the young woman who begins her professional study with the purpose of becoming a kindergartner should lend herself to a discovery of the principles common to all grades, and, through a more or less cursory

experience with typical stages of childhood, learn to look for the constant and the variable in growth.

For the student who comes directly from high school or academy, the practice teaching during the first year will be in the kindergarten and first-grade groups, followed by work in the intermediate and grammar grades; during the second year, in the kindergarten and first and second or third grades; during the third year the assistant teaching will be in the kindergarten and first-grade groups. This third year will give opportunities for longer periods of teaching, at the discretion of the faculty.

The subjects of study will be such as this general order of practice demands. During the first year a broad outlook over the culture materials of history and geography will be aimed at, as seen in history, occupations, literature, science, geography, and mathematics. The main problems of psychology will be discussed, with the school as a laboratory. Enough work will be done in the arts to give the student a glimpse of the social and psychologic meaning of drawing, painting, modeling, making (in various materials), and singing.

During the second year geography, science, and history will be taken more in their special significance as material for adaptation to elementary work. History will be studied with emphasis upon primitive industries and race-development, both because of the fitness of the subject-matter to little children and also because of the psychologic parallels between race-development and child-development. Local areas will be studied in science and geography. Children's literature and story-telling, and the study of games and songs for little children, and the development of the child voice, will be an important part of the work in literature, singing, and physical culture. There will be one major of work in kindergarten theory and practice. The psychology will be educational and genetic. The work in the arts may be narrower, with the purpose of acquiring more power of expression in smaller ranges.

The third year offers college work in anthropology and sociology, further work in psychology, and a study of Froebel's

teachings in comparison with the inferences of later psychology and pedagogy, elective work in the arts, and longer periods of assistant teaching in the kindergarten groups.

The courses in kindergarten theory and practice and in Froebel's educational principles will be outlined in succeeding numbers of the ELEMENTARY SCHOOL TEACHER.

BOOK REVIEWS.

History of Education. By E. L. KEMP, Professor of Pedagogy in the State Normal School, East Stroudsberg, Pennsylvania. [Lippincott's Educational Series.] Philadelphia: J. B. Lippincott, 1902. Pp. xxiii+385. $1.

STUDENTS of education, and the general reader as well, have reason to be glad that the fact that there were several good histories of education already in hand did not deter Professor Kemp from the task of adding one to the number. Probably the book will be read with especial interest by those to whom it comes as a survey of ground already familiar to them in detail. It leaves upon such a reader an impression not unlike that made by a swift tour in the companionship of an intelligent inhabitant, through country traversed previously and with more detailed examination. Yet its value will be almost as great as a guide-book to one yet unfamiliar with the ground.

The author's treatment of his subject is clear, interesting, rapid—almost too rapid for the class of readers for whom the book seems intended. It interests; it points out all the important and significant features; it helps, though not always, to an intelligent understanding of causes and results. But the reader wishes to supplement all this, and he must do so, even to gain the ends the author proposes. The value of the book would be considerably increased by a few references to collateral material and by a few explanatory notes. For example, to readers who stand in need of the sort of information afforded by these pages the brief statement is not luminous that "out of the combination [of Greek philosophic ideas with oriental religious conceptions] grew the neo-Platonic movement of the third century A. D." The reader is informed that in India "frequently older pupils assist in teaching the younger ones. This suggested the monitorial system to a famous English teacher who introduced it into England." It would be more satisfactory and instructive to the student beginning the study of the history of education if Dr. Andrew Bell had been named instead of "a famous English teacher," and if at least a reference had been given to p. 280 of the book, where Dr. Bell's enterprise is explained. These cases illustrate what seems to us slight but frequently recurring blemishes. No doubt it is an excellent quality in a book that it sends its reader in search of wider information than it affords. In this direction the value of Professor Kemp's book is considerably enhanced by the bibliography that follows the text.

Beginning with the earliest times, education among the oriental nations is treated in five short chapters, not because, in the opinion of the author, these made important contributions to western education, but because "the systems are very interesting, and the development of them was so simple that the understanding of them is easy and serves as a helpful introduction to the study of the advanced and complicated systems of the more progressive peoples." The best of these sketches is that of education in Persia, whose superiority to other eastern nations, save the Hebrews, is shown to consist in her loftier ethical conceptions. After the oriental nations, Greece and Rome are treated briefly, and then follows, within eight pages, a masterly study of "The Founder of Christianity" as a teacher. Here for the first time we detect the modern

emphasis in education. In the teaching of Jesus we are led to discover the germs of modern educational ideals. "Jesus did not, like the Greek philosophers, seek a new unity for a small state and overlook the claims of the lowly and oppressed. He sought the unity of the race. . . . . He met men and dealt with them entirely on the basis of their humanity. In his treatment of them, he recognized no distinction as due to nationality, creed, caste, wealth, or learning. . . . . Prior to Jesus, children, generally speaking, were subordinated to a narrow interpretation of the interests of parents or society. . . . . No phase of the influence of his life is sweeter to contemplate than the new meaning it gave to child-life. . . . . Wherever his spirit and word have taken hold of the thoughts and affections of men a peculiar sanctity has gathered about childhood, and parents and states have learned to make sacrifice for children. . . . . The life and doctrine of Jesus were destined to modify, in the course of time, every phase of educational activity, to revolutionize its aims, principles, and methods." There follow an analysis and an enumeration of the fundamental characteristics of the teaching of Jesus.

The significance of the "Middle Ages" for education is to be found chiefly in monasticism, the reforms of Charlemagne, feudalism, scholasticism, the rise of cities, and the enfranchisement of the common people. These influences are well traced in four short chapters, covering thirty-one pages. Yet, on the whole, a more distinct impression of the separate and the relative significance of each of these forces and movements is received from sixteen pages of the first chapter of Russell's *German Higher Schools*. Professor Kemp's chapter on the "Rise of the Universities" is excellent. No period is so crowded with events of significance for education than that from 1500 to 1700. The Renaissance, the Reformation, the "counter-reformation" of the Jesuits, the scholastic humanism of the schools, the influence of France, the realistic renaissance proceeded in swift succession, each occasioned by clearly marked causes, each characterized by distinct educational ideals, each leading to distinct results. The reader of Professor Kemp's book finds each of these prevailing influences considered in turn, but he misses a sense of interrelation or concatenation, needful to impart unity and to give an impression of a steadily onward movement. The fact, easily noted, that Luther's ideas, so well exhibited by Professor Kemp, really had slight, if any, influence in the shaping of the schools, and that Melanchthon rather gave humanistic color to education, until, by a transition easily traced, we find in Sturm that we are at the opposite pole from where Luther stood — this fact is not even indicated. Yet, without taking account of it, one hardly forms a just idea of the educational outcome of the Reformation. The chapter on the Jesuit schools is very full and clear. And the accounts of the "Innovators," Ratke, Comenius, Milton, Locke, Fenelon, and the later group, Pestalozzi, Froebel, Herbart, give a vivid impression of the great prophets of education whose ideals are but now realizing, and some, alas, still awaiting fulfilment.

The significance of the eighteenth century for education is well shown, but here again there is lack of emphasis on interrelation and unity. Facts, names, dates, influences stand rather by themselves than in mutual relations. One reads of the realistic movement represented by Francke and Hecker, and then of the new Humanism that in turn prevailed. But the relation of these two tendencies, and the fact that each was the natural and even inevitable outcome of immediately antecedent conditions, is not indicated. And Basedow and the Philanthropinists are considered without any reference to their relation to these characteristic movements, of which they were in some

sense the extreme expression. A slight change in arrangement and treatment of material would remedy this. The closing chapters on "The Growth of Public Elementary Education," "Secondary and Higher Education," "Other Characteristic Developments (Higher Education of Women, University Extension, etc.)," and "School Supervision" are among the best in the book, though even in these one receives the impression of sketchiness.

But we must not demand too much of an author who undertakes to give a general view of the history of education in one moderate-sized volume. Something must be left to the good sense and energy of instructors and students. As at the beginning of this review, we must commend Professor Kemp's history as an excellent guide-book to a most interesting field. It is highly agreeable and profitable reading. Whatever faults it exhibits have evidently been committed by a master of his subject, and not by one superficially acquainted with it. The style is absolutely clear, the sentences short and periodic. The page is printed in large, open type, and the general mechanical execution of the book is excellent.

NATHANIEL BUTLER.

THE UNIVERSITY OF CHICAGO.

A Latin Grammar for Schools. By ANDREW FLEMING WEST. D. Appleton & Co.

"THIS book is planned to give as much grammar as is serviceable in the school study of Latin. If Latin grammar is to be understood and relished by boys, it must be confined to the most necessary facts. . . . . A sketch in outline contains less, but tells the beginner more than an elaborate picture does. Scientific Latin grammar is not for boys, but for men." (Preface, p. 7.) No claim is made for originality, except in the form of statement, and ample acknowledgment is made to the masters of the subject.

The aim of the book is clearly set forth, and the remarks that here follow are all made from the point of view of elementary teaching, and not from that of critical scholarship. The type is unusually large, the classification and arrangement are, in the main excellent, and the form of expression is clear, concise, and graphic. Even he who wants to run must read.

Turning now to details, one fears that in the whole treatment of stem and ending, in both declension and conjugation, Mr. West lacks the courage of his convictions as set forth in his preface. "The body of a word is called the stem, to which is attached the ending" (p. 14). "The ending is properly the part attached to the last letter of the stem. . . . . Oftentimes the last letter or letters of the stem are weakened, otherwise altered, or lost. . . . . The changes made in forming the cases are too complicated for a beginner in grammar. For convenience, therefore, *the changeable part* at the end of a noun is allowed to stand as the ending" (p. 15). And by inference the rest of the word is the stem; yet in the first declension (p. 17) we find *mēnsa* (stem *mēnsa*) with the list of case endings printed as usual—*a*, *ae*, *ae*, etc. The entire declension of this word is also printed in full. But is not the question obvious: Why is not the nominative *mēnsaa*, since the stem is *mēnsa* and the ending *a*? And if *mēnsa* be learned from the book in uncritical fashion, how about the other words of this declension? For practical elementary teaching the stem (the word need not be used at all if one's scholarly conscience is troubled)

of *mēnsa* is *mēns*, and that final *a*, "originally *ā*, later *ă*" (p. 16), that is not observable to the naked eye in classical Latin, should be mentioned in a note, in fine print, if at all. Microscopic Latin grammar is no more adapted to beginners than is scientific grammar. In the same way the stems in the other declensions are given as ending in *o*, *i*, or a consonant, *ŭ* and *ĕ*. Any explanation of the dropping or changing of these vowels is barred, as quoted, but the simple statement that the working stem is found by dropping a case ending, usually the genitive, is nowhere made. When so much that is exceedingly elementary is given one has the right to expect the treatment throughout to live up to that standard. The criticism in regard to stems and endings applies to the handling of verbs and adjectives. The treatment of the latter is, however, particularly excellent in its lists of irregularities.

The printing of English equivalents for the various forms in inflection seems to me a mistake. The forms represented certain notions in the Roman mind which are very frequently not classed together by the Englishman. For instance, the genitive *matris* may be "of mother," "for mother," "mother's," or even "mother's duty," according to the rest of the sentence; when it stands alone it is impossible to decide which is correct, and to print any one, or even all, is either false or unnecessary. Each case represents its own set of notions in the whole thought as expressed in the sentence. A knowledge of these possibilities, followed by the decision, on the grounds of probability and good judgment, of which is best in the given instance, is all that is really essential. The rest is only an exercise in English expression. The point made is even more urgent in the conjugations of verbs. It is impossible to give a meaning, or even a correct list of reasonable length, for any given subjunctive form, and the attempt to do so leads to rigidity and a mechanical exchange of words on the part of the pupil. Let the possibilities be understood, let him see that the choice, within that range, is his to make, and then let him try his various choices until he finds the one most to his mind; elasticity and life are given to his translation, and the reproach that the study of Latin injures the English of the young student loses all force. A student so trained will not be likely to translate "*Cum grano salis*," "With a corn thou dancest," as did, according to *The London Spectator*, a youth in Cambridge, England.

GERTRUDE PARKER DINGEE.

HYDE PARK HIGH SCHOOL,
Chicago.

EDITORIAL.

AN ELEMENTARY EDUCATIONAL MAGAZINE.

In July, 1900, there appeared a new educational magazine entitled the Course of Study. Its purpose was "to present in theory and practice a full exposition of the work of the Chicago Institute in the academic and pedagogical schools." This exposition was to be "continuous and to consist of a monthly record of the work done in all grades and departments, prepared by the teacher of the grades and departments." At the close of the year the title was made more inclusive, becoming the Elementary School Teacher and Course of Study. The school itself was transferred to a new position and became the University of Chicago School of Education. In the second year the school and the magazine suffered a severe loss in the death of Colonel Parker. The faculty carried on its work with untiring zeal until the close of the year. At the beginning of the third year it takes up its work under the leadership of Director John Dewey.

The term "Elementary School Teacher" is so broad in its application that it has been decided to omit "Course of Study" from the title, although the magazine will present, as heretofore, a full exposition of the course of study in the School of Education. The scope of the magazine will be enlarged somewhat, including not only the constructive plans of the members of the faculty of the School of Education, but also the projects and conclusions of other men and women who are giving special attention to subject-matter in the curriculum, or to school management. The journal will be a clearing-house for those who are moving along modern lines in attacking the problems of the course of study and of mind in its early stages of development.

It is not only those engaged in elementary teaching who can contribute toward the solution of its problems. The specialist in teaching is no longer the narrow-minded student limited to a narrow view of a small section of his subject. Such has been the influence of the theory of evolution on scholarship that the specialist must know his subject all through the stages of its development from its beginnings to its highly developed state. And if he be a scholar in the broadest sense of the term, he must know something of the phases which appeal to mind in the various stages of racial evolution and individual development. These two conditions make the specialist eminently fit to advise with teachers in the different departments of the school, ranging from the kindergarten to the university and to speak on the questions: What shall be the subject-matter? and, How shall it be handled in the elementary period of school life? The hosts of teachers thronging the summer schools,

the institutes, and the universities during the long vacation furnish ample testimony of the desire of the elementary teacher for the point of view and the results of investigation of those who are specializing. Many who are attempting to move in harmony with the time-spirit are handicapped by the uncertainties and the puerilities in the suggestions offered them in print and in teachers' meetings. A magazine should afford the scholar a means of presentation and the teacher a means of discussion that cannot be found elsewhere.

The elementary teacher who is busy in the schoolroom, the specialist who is garnering the rich harvests in the laboratory and the study, the superintendent who is a teacher and a student, have common interests which can be best advanced by bringing to bear upon them the experience and the scholarship of all classes of workers. Full and free presentation and discussion of a subject can be best secured, not in a single article, but in many articles which are the products of the thought and experience of different types of workers. To comprehend all of the conditions involved in one educational question is far more valuable in the solution of other questions than to have a lot of fragmentary notions that have been obtained by nibbling in desultory reading. The method of the teacher will be scientific when the data furnished by educational leaders are presented and treated scientifically. May not one safely assume that the time has come when an educational magazine can promise its readers a treatment of the questions in educational psychology, in subject-matter, and in school management in accord with the method of science?

There are many important questions in school management open to discussion. No one of them is more pressing than that which involves the relation of the kindergarten and the primary school. There are teachers ready and competent to throw light upon the problem of the kindergarten and the lower primary grades. They have given much thought to the question of the kind of occupations best fitted to aid in the continuous development of the affections and sympathies, the memory and judgment, of children between the ages of four and eight years. During the coming year both kindergartners and primary teachers will express themselves in the ELEMENTARY SCHOOL TEACHER on these vital questions.

Many teachers in the kindergarten, the primary and the grammar schools —all of whom are included in the term "elementary-school teacher"— will appreciate an opportunity to view questions concerning their work, not only from the standpoint of those within the precincts, but also from that of those without. The theories and constructive plans presented by the faculty of the School of Education, together with the contributions by specialists in subject-matter and in school management, will enable the ELEMENTARY SCHOOL TEACHER to offer that which will be conducive to the development of power in educational thinking and doing.

ELLA F. YOUNG.